

MANUFACTURERS' RECORD.

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Manufacturers' Record.

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One of the best influences for the industrial good of the South is the Southern Manufacturers' Club at Charlotte, N. C. It is a social center where men of affairs meet and have opportunity to discuss informally matters vitally affecting the material interests of the Piedmont region and other portions of the South, the discussion frequently having more practical effect than if it had been conducted in a more formal way by some organization of special intent. Its membership includes natives of Massachusetts, as well as of the Carolinas and other States. It has entertained quite recently the New England Manufacturers' Association in a body, and a representative party of business men and manufacturers of Cincinnati making better acquaintance of the South, and has numbered among its special guests Wu Ting Fang, Chinese minister to this country; United States Senator McLaurin, Governor Aycock and other distinguished men, quite representative of the dominating spirit of the club, which is for liberality and progress. Elsewhere in this issue of the Manufacturers' Record is a sketch of the plans and purposes of the club, which demonstrates that Charlotte has set the example for her sister cities in more respects than one.

Railroads and the People.

In commenting upon the advantages of a good understanding between the railroads and the people, the Nashville American sets forth the following bits of wisdom:

Railroads are costly concerns; they involve the expenditure of millions of dollars in construction and maintenance; they represent the money not of a few individuals only, but of many hundreds; their property is as much entitled to legitimate protection as the property of other individuals and tax-payers. They constitute one of the largest single sources of revenue on which a State relies. They can be most seriously and injuriously affected by legislation. They have as much right to be heard before legislative bodies as the farmer, the merchant, the manufacturer or any other citizen or tax-

payer. It is entirely legitimate and proper for them to be represented before legislative bodies by their attorneys and authorized and known representatives—as much as the representatives of farmers or any other legitimate interest have a right to be heard. There can be no sensible or reasonable objection to this. The railroads have no right, and, it may be fairly presumed, have no desire to ask more. This is a fair, honest, just and legitimate way of doing business—fair and just alike to the railroads and the public. It would be unwise in railroads to deliberately court the hostility of the public. The public cannot make unjust and wrongful warfare on the railroads without injury to the public welfare, for the interests of the railroads and the interests of the State are closely allied. When one prospers the other prospers. Railroads cannot grow in prosperity while the State declines. Railroads derive their revenues from their freight and passenger traffic. When the people are too poor to travel, when the farmers' crops are small, when manufactories shut down or reduce their output, when the trade of the merchant languishes, the railroads also suffer; their employees also, as a natural result, are apt to suffer a reduction of wages. The prosperity of the railroads and the State's prosperity cannot be separated. The railroads are interested in seeing the State prosper.

These comments originated in a desire to rebuke the class of men to be found about legislative bodies who in the past have thriven upon a game involving a deception of the people by cultivating prejudices against corporate undertakings, on the one hand, and on the other, with agitation thus aroused as the weapon, the attempt to hold up corporations through hostile legislation. It is believed that the power of such miscreants, a curse to any State, is waning. It will end with the wider reading by the people of such truths as those formulated by the American.

Not Prepared to Fight.

In view of the fact that the United States has considerable to do with supplying Germany with food, the prospects of that empire's being in a position to unite in a European commercial war against this country appear to be growing dimmer, for the outlook for the cereal harvest this year in Germany is gloomy, according to a memorial which has been presented to the Prussian government by a commission which acts in an advisory capacity on agricultural subjects. United States Consul Frank H. Mason at Berlin reports that this memorial estimates a deficit this year in Prussia alone of

1,766,636 tons of bread-producing cereals, while the crops of Saxony, Bavaria, Wurttemburg, Baden and Alsace-Lorraine will be below the average. The situation is so stringent that the memorial petitions the Prussian government to adopt certain measures for the relief of the agricultural population. These include the grant of an immediate and liberal appropriation of money to be distributed to small farmers for the purchase of seed, forage, straw and other necessary supplies, provision for loans of money at low rates of interest and long terms of repayment, liberal reduction of railway freight rates on forage, fertilizers,

seed, grains, fuel and other articles used by agriculturists and on domestic animals, the granting of permission to gather wild grass and leaves for forage or cattle bedding from the State forests, postponement of divers rents and taxes for 1901, the requiring of all grain and produce dealers to purchase large supplies of oats and liberal distribution by produce dealers of rye and bran at net cost prices to needy agriculturists.

The commission which presents this memorial represents the agrarian party, which has become so aggressive in German politics in demanding measures that will tend to check the importation of breadstuffs into Germany. The situation, considered in connection with the short wheat crop in France, points directly to a necessity for importations in which the United States may not be disregarded. This fact may not be pressed home to the minds of the agrarians, who, indeed, are pointing to the scant harvest at home as an argument for a creation of higher prices through the instrumentality of the government. They should remember, though, one or two things. First, the proposed commercial conflict with America as the common foe has its origin primarily in the rapidly-acquired ability of America to compete with the older industrial nations in the markets for manufactured goods. America, at the same time, is able to feed itself and to help out its fellow-nations less fortunate in agriculture. America is the best example of a self-contained nation in the world. In ordinary warfare as conducted nowadays the great problem is to keep the fighters fed. In industrial and commercial warfare similar provision must be had. The men who make the goods which Germany and other European nations sell must be fed, and fed at prices which will not absorb more than their wages. No starving man was ever saved from death by doubling the price of food. German agrarians might ponder upon that fact.

A Rallying Point for All.

Most persons are familiar with the story of the two knights contending about the material of a shield by the roadside which they approached from different points. To the one it was a golden shield; to the other it was silver. As a matter of fact, one side was gold and the other side was silver. There are many questions that will not be settled because men refuse to remember the moral of the story of the shield. It is the easiest thing in the world to view a subject from one side only. Every day experience is demonstrating the futility of such a view. This is illustrated in two communications published in this week's Manufacturers' Record, which happened to be written within a few days of each other. One is from Mr. Edwin Brobston of Brunswick, Ga., and the other from Mr. Otto C. Butterwick of Brooksville, Fla. Both discuss the re-

lations of the North and South. Mr. Brobston, as a Southern man, naturally resents the attempted interference by Northern labor interests in the growing labor problem of the South, and with much truth tells of the mistake which Northern labor has made in keeping alive the memories of sectional strife, instead of coming to the South and participating in the advantages of that region. Mr. Butterwick, who is a Northern man, but who for ten years has lived in the South, objects to the bitterness, which he has discovered in remote neighborhoods, manifested at times against newcomers. He attributed this bitterness to a misapprehension born of the selfishness of the petty politician, who has, of course, failed to keep pace with the progress of the country, and, indeed, of the South itself.

Here are two views which, on the surface, are opposite to each other. But they have a common point. Both Northern labor and those people of the South who are without the means of being acquainted with events of the day except through the talk of local political leaders or of the cross-roads paper dominated by them, are suffering, and have been suffering for years, from petty politics. The Northerners have, perhaps, been the greater sufferers. Their leaders have not only, in their efforts to make a living without working, postponed the day when labor and capital will be in harmony, but have also made it difficult for labor and capital in other parts of the country to adjust themselves readily to changing conditions. They are also largely responsible for conditions in the South which seriously affect American labor everywhere, but which will be rendered even more embarrassing by the influence from outside.

Read in this light, the two communications may be regarded as contributions to the cause which has as its object the removal from the field of pernicious activity of the labor politician in the North and the picayune leader in the South, who keeps his hold upon public office by dealing in issues long since defunct.

Building for New Orleans.

Regarding the proposed ordinance granting the Illinois Central Railroad Co. privileges on the water front at New Orleans, which will enable it to carry out its plans for strengthening its terminal facilities, the New Orleans States makes the point that the monthly pay-roll of the company's employees in New Orleans, which amounted to about \$30,000 five years ago, reached more than \$64,000 in May last, while in the other months of the year it amounted to \$100,000. The States says:

It is fair to assume that nearly all of this money goes into the channels of trade to the great benefit of the smaller merchants. Aside from this, the large pay-rolls show conclusively that the Illinois Central Railroad is giving employment to large numbers of men, and that the labor of hundreds of others will be in demand if the railroad com-

pany is not prevented from building additional wharves, elevators and warehouses necessary to handle the immense export and import business which it has planned to bring to this city from the Western section of the country.

Experience has proved the immense value to New Orleans of the Illinois Central Railroad. The city should not rest satisfied with granting the company privileges that will strengthen the outward-bound commerce of the port, as has been done in the past, but should make it possible that a greater number of cargoes of inward-bound goods should reach the railroad terminals, and at the same time should encourage all legitimate movements that will build up the industry of the city and give the trains bound north and west material for up-freights. That would be a practical means of recognizing the valuable services rendered by the railroad.

Not a Discovery.

Unabashed by the well-earned experience at Philadelphia, the secretary of the "Southern Industrial Association" is sending announcements of another attempt to hold a great meeting. In a letter to the Alabama Press Association he says that a sentiment in the North will send a flood of capital and settlers into the South if proper evidence is given that the South is ready for these, and will insure them proper encouragement and protection. This work, he adds, lies largely with the press of the South.

In the last sentence is the germ of a solid truth. It is a truth which has long been recognized, and upon which the press of the South has been acting systematically and persistently for many, many years. As a result, capital and settlers have been coming into the South. In many instances the press of the South, in its great work of making known the South's resources, has not been encouraged as it should be locally. It has been given at times less support than the press of any other section engaged in similar work. But it has not been deterred from its great task, and today is hammering at it with undiminished vigor, and is not permitting the tangible results of its endeavors of two decades to check its energies. If it has had time in the midst of its practical labors to think about the soi-disant "Southern Industrial Association," it has doubtless wondered what in the world it is driving after. The Southern press cannot fail to recognize that what he suggests as a new discovery is an old, old tale, and that the work which has been announced as the special one of the "Southern Industrial Association" has been wrought by the press, lo, these many years.

THE SOUTH'S GREAT HOPE.

Importance of Technical Training in Its Future.

The most profitable investment which the people of Georgia or any other Southern State can make, the one which would yield the largest return in dividends to the people at large, which would create the greatest employment for the people, the greatest wealth, would be liberal investments in the establishment of the highest technical schools. No other investment which the South or which its wealthy people can make would be productive of so much good. And the question comes forcibly to the people of the South in this day of ever-increasing competition, are we going to permit the States without natural resources to sur-

pass us in the development of industrial interests, which means employment and prosperity, the advancement of civilization, the upbuilding of churches and schools, and all else that combine to make life worth living, or are we going to turn our attention to the supreme importance of providing at once the most complete facilities for technical education? The industrial advancement of Ohio, of Illinois, of Pennsylvania, of New England, which has reached a stage that we of the South can scarcely comprehend, creating wealth more rapidly than the world has ever known, has come about largely through the work of the trained expert. The great technical schools of Germany, and such institutions as Cornell, the Massachusetts Institute of Technology, the Stevens Institute and others are the parents from which have sprung the industrial giants who are revolutionizing the world's manufacturing interests. To attempt to compete with them without fitting the South as a whole by technical training for the contest would be as unwise as it would be for an army to attempt to fight a battle equipped with the old muzzle-loading musket against one equipped with rapid-fire guns and Mauser rifles. The army with its old-time muskets might be situated upon what seemed to be an impregnable position, but before the power of the rapid-fire gun and the Mauser rifle no position in the world defended by muskets could hold out. And however great may be the South's natural advantages, of which we justly boast, we must inevitably fail in the contest unless we meet the trained expert of the North and West with the trained expert of the South. Our destiny is altogether in our own hands.—Richard H. Edmonds, editor Manufacturers' Record, in interview in Atlanta Journal.

A CENTER OF ACTION.

Practical Work of the Southern Manufacturers' Club.

The Southern Manufacturers' Club at Charlotte, N. C., is an organization of value not only to Charlotte, but throughout the Piedmont region, and even beyond. It is an organization which is half social and half business. As a social institution it has a well-furnished and well-equipped club building, in which is operated an excellent restaurant and cafe. Quite a number of the members live in the club building. Some rooms are reserved for the exclusive use of non-resident members and guests. The membership is made up of gold democrats, republicans and silver democrats, regardless of politics. It has a number of members who were born in South Carolina, a number who were born in Massachusetts, many, of course, who are native North Carolinians, and many from various other States.

The club has entertained the New England Manufacturers' Association in a body, a representative delegation of business men and manufacturers from Cincinnati; Wu Ting Fang, Chinese minister; United States Senator McLaurin, whose speech before the club launched the senator on his new political career, and other distinguished men. The club's latest entertainment was to Governor Aycock. The governor made a speech before the club, in which he dwelt at some length and with eloquence upon the freedom of political thought and action for every person.

This club stands for liberality and progress. It selects its membership upon this principle of liberality and progress, regardless of politics and regardless of sectionalism.

The club, with these principles, has been an important factor in attracting good men and much capital to Charlotte. Attracting good people from other parts of the South and from the North, the mixture conduces to further liberality and more progress. By all these agencies the most and best capital is made and accumulated at home. The club has been an important factor in making Charlotte a liberal, progressive and attractive city. When a stranger goes to Charlotte with the idea of manufacturing or of finding a business opportunity, if he can make any sort of showing some member gives him a card to the Manufacturers' Club. Here in less than the ten days' limit he can get access and a hearing from those members of the club who might find interest in his plans. There is no meeting nor resolutions. The man who wants a position or has a proposition to locate a factory talks to individuals, and when he gets enough capital interested he calls a meeting of the interested parties and commences the execution of his plans. If he fails to interest anybody, that ends the matter.

Thus the club is at the same time a pleasant social institution, and makes the best sort of business contact for the progressive business men and manufacturers of Charlotte and the outside world. It makes the best opportunity to sift and consider a proposition without having to resolve for or against it.

IRRIGATING BY WELLS.*

By S. L. Cary.

In A. D. 1884 modern improved agricultural machinery was first introduced to the rice fields. This revolutionized the industry, stimulated production and necessitated many other improvements. The rainfall, sixty inches, was not sufficient to flood. Rice could not be grown successfully without flooding for a period of sixty to eighty days. This necessitated the building of canals and later the making of wells. This increased production to such an extent that there must be more mills for preparing and a broader market to consume our rice. The rice fields were first flooded by canals, getting water from bayou, lake or river. The water supply was limited, and the contour of the prairie prevented reaching all those lands for flooding purposes. Later on it was found that the earth was the great storehouse of irrigable water. How to reach this was a scientific problem of large proportions.

Hydraulic pressure was employed for washing away the clay, and iron or steel casing to follow the washing, to keep the quicksand from filling the well, and on through alternate layers of clay and quicksand to an average depth of 130 feet, when coarse sand or gravel was reached. Then screened pipe was used for twenty to sixty feet (making the capacity of the well). These wells are of six-inch, eight-inch, 10-inch and 12-inch casing, respectively, costing complete in wells \$2, \$3, \$3.50 and \$4.50 a foot. Water rises in these wells to or near the surface.

Suction pumps submerged or with injectors for priming are on trial. This dry season will tell us which is best.

As motive power are used steam engines, the power to be increased according to size of wells, and, as these wells can be united at top and use one large pump, the power must be increased proportionally.

The discovery of fuel oil has made steam the most economical power and oil the cheapest fuel in the "rice belt."

*A paper read before the Farmers' Institute at Jennings, La., on June 27.

The kind of pump, the best engine, the distance apart of well, the size casing, whether to unite the wells or to have a pump for each well—these and other interesting questions are likely to be determined if this proves to be a dry season.

The supply of water for canals and wells is a question of vast importance to the further development. We have had two very dry harvests, followed by comparatively dry winters, leaving us short nearly or quite thirty inches of the usual rainfall. And the past two months are eight inches short of the average for seventeen years. Is it any wonder that the water-level is lower than ever known or recorded before? And that more or less difficulty has been met in starting our pumping plants? Signals of distress are made by both canals and wells, and should the season continue dry the cry of overproduction will be put to sleep. But should we get water for the present large crop, the success of our system of double irrigation is assured.

With the usual rainfall the number of wells may be multiplied indefinitely. The average rainfall during the growing season of rice for seventeen years is 2.5 inches; the evaporation and loss, one and one-quarter inches a day. As rice does not require flooding till four to six inches high, and as evaporation is retarded by cloudy and stopped by rainy weather, then the usual rainfall would supply the amount evaporated and lost, leaving only the dry seasons above the average and about four to six inches for flooding to be supplied by canals and wells.

What affects the water-level in our wells? If it is the rainfall, then the average rainfall would give the average water-level and would account for present lower level. For this we have to remedy but to follow it down, and in doing this we may have to substitute force or suction pumps. This condition may happen once in a lifetime. But for the usual every-year conditions, our present system is adequate.

About eight years ago the first canal was made to flood rice in Southwest Louisiana. Now over 100, with 500 miles of main canal and 1000 miles of laterals.

Some four years ago wells were first used. Now 500 are used, with 300 pumps and engines, costing over \$500,000.

Now are used 4000 twine-binding harvesters and other first-class up-to-date machinery, requiring the expenditure of over \$10,000,000, exclusive of land values. It is easily seen why land values and prices have risen from \$1 fifteen years ago to \$50 today. One great advantage of well irrigation over any other is private ownership. Wells make homes, freeholders, voters. Wells place the crown of ownership upon labor and make labor the peer of capital.

Wells for irrigation eliminate a large part of the gambling element from farming in the rice belt, and bring us as near perfection as it seems possible to get.

Water is the largest element in production. Its presence changes the sterile desert to a garden. It is the best-known absorber and conveyor of fertility.

The successful drilling for water made drilling for oil the great success that it is. The rice belt today is the largest reservoir of irrigating water and of petroleum on earth, and the surest and most valuable agricultural belt.

Manchester, Iowa.

The Georgetown, Charleston & Wilmington Steamboat Co. has been organized at Georgetown, S. C., to operate a line of steamboats and to do a towing business. Among those interested are Mark Moses, president of the company; J. B. Steele, vice-president, and A. Moses, secretary and treasurer.

THE SOUTH: TALKING OR DOING.

By Edward Ingle.

[Written for Manufacturers' Record.]

In this day of much talk about Southern industrial conventions it may not be unprofitable to turn back the pages of Southern history and refer to a letter written fifty years ago by Daniel Pratt of Alabama, a man who did things and who was honored by the State of his adoption. A sketch of his life published fifty years ago states that he was a native of Temple, N. H., and was apprenticed in his youth to the carpenter's trade. In 1819 he went to Savannah, Ga., and thence to Milledgeville and Macon, carrying on his trade until 1831, when he joined with Samuel Griswold in the manufacture of gins at Clinton, Ga. Joining the movement from the older States, he moved to Autauga county, Alabama, in 1833, where he continued the manufacture of gins, and soon established a reputation for them in Alabama, Florida, Mississippi, Tennessee, Louisiana, Texas, and even in Mexico, the orders coming to him faster than he could fill them.

In 1838 he bought a large tract of land and established Prattville, on Autauga creek, and about the same time he established a house at New Orleans to meet the demands of his Southwestern trade. To the saw-mill, planing mill, grist mill and gin at Prattville were soon added a cotton mill, in which the poorer classes of whites were given employment, and which in 1851 was using from 1200 to 1500 bales of cotton a year in the manufacture of osnaburghs and sheetings, an iron foundry, a sash, door and blind factory four stories high and a new brick flouring mill. Thirteen years after the founding of the town, which was fourteen miles from Montgomery, it contained three churches, two schools, stores, a carriage shop, two smithies and sixty-five dwellings for a population of 800 persons, with nearly every family represented in an industry. The sale of spirits was absolutely forbidden in the town.

The services to the State of Daniel Pratt were so highly estimated that the University of Alabama conferred upon him in 1846 an honorary degree. A letter of President B. Manly of the university, announcing this honor, is worth reproduction. He wrote:

"Dear Sir—The trustees of the University of Alabama, appointed by the Legislature of the State, in the exercise of the discretionary powers entrusted to them, have authorized me as their official agent to confer upon you the honorary degree of Master in the Mechanic and Useful Arts, and at the late public anniversary of this institution, held on the 21st of December, 1846, the said degree was conferred.

"This is a token of the respect and honor felt by the trustees, in common with reflecting men in every station, for the high degree of intelligence, benevolence, uprightness and success which you have exercised and displayed in the relations of life allotted you by Divine Providence. Without having devoted your life to literary pursuits, you have attained in an eminent degree that which is the end of all letters and all study—the art of making men around you wiser, better and happier.

"You have shown in a substantial manner that you value and know how to promote the industrial and economical virtues among men, rendering your own intelligence and honestly-acquired wealth a blessing to all that come within the sphere of your influence. You have shown yourself the friend and supporter of schools for the son of the laboring man as well as of the rich, that all the

rising generation may be fitted for that condition of republican freedom which it is the peculiar privilege of American citizens to enjoy. Above all, you have shown that you discern what is the great source of all virtue and happiness, of all knowledge and success by your efficient maintenance of the institutions of the religion of our Lord and Jesus Christ among your people.

"May your life and health be long preserved. May you enjoy the special influence of God's holy spirit, and while filling the hand of honest industry with the wages of labor and erecting over the shelterless a neat and comfortable home, may you, too, receive a reward for your labor such as this world cannot give, and find for yourself a mansion in that building of God, that house not made with hands, eternal in the heavens.

"In attestation of the honor which has been conferred upon you, I have caused a Diploma to be made out, duly signed and sealed, of which I beg your acceptance, and which will be sent to your address or delivered to your order as you may be pleased to designate."

Such was the estimate by men of his day of Daniel Pratt. It indicates that what he might have to say upon industry and industrial development would contain common sense. Midway between the earlier Southern conventions of 1838 and 1839, when progressive men of the Carolinas and Georgia sought to link the seaboard South with the new West, and the later conventions, which ultimately were monopolized as an arena for talk by degenerate politicians, and at a time when secession was prematurely, yet too late, suggested, he wrote:

"Instead of spending our time and resources in conventions, let us spend them in encouraging and protecting our own State. Let us show a disposition to encourage home industry and home trade.

Instead of going to New York and Boston

for almost everything we consume, let us encourage our own tailors, shoemakers, tanners, saddlers, cabinet-makers, pail-makers, broom-makers, cotton-gin makers, cotton and woolen factories and many other branches of business. It may be said we have no good tailors, shoemakers, etc., but should we show a disposition to encourage those various branches we soon would have mechanics among us and as good and cheap a coat made here as we can get from New York, and so with all other branches. The fact is, no mechanic can engage in these branches as we now are situated with any prospect of success.

Instead of raising up mechanics amongst us we are driving them from us. We work hard and pay nearly all the proceeds of our labor to the Northern and Eastern States, and are they to blame for receiving it? Let us look at the things in their proper light. What is it that builds up Boston and New York? Is it commerce? That is part, but take away their mechanics and manufacturers, and you would soon see three-fourths of their stores tenantless, and merchants would not go there for supplies. Cannot our Southern cities be built up in the same way? Could not our merchants buy supplies in Charleston, Savannah, Mobile and New Orleans, instead of going to New York? When this shall take place (and I am convinced the thing is possible), then we shall be in a much better condition to secede. Then the abolition chord will be loosened. Then we shall be a prosperous and happy people. This is what I would earnestly desire to see. Instead of these angry debates at our public meetings, let this matter be discussed; let us unite and say that we will give Southern manufactures the preference."

Mr. Pratt was writing at a time when

in one of the Southern States the endeavor was being made unsuccessfully to induce the secession which happened ten years later. His practical mind saw the unpreparedness of the South for any such undertaking. It also recognized the value of doing things instead of talking about doing things, and the utter foolishness of adopting resolutions representative of nobody but the committee which framed them and binding upon even fewer persons.

The difference between the conventions of the early fifties and some of the conventions of today is that some of the earlier ones swung about the point of secession, for which the South was never prepared after 1820, and the latter turn absurdly upon the point of reunion of the sections, an accomplished fact about which few practical minds concern themselves.

One man like Daniel Pratt was worth more to Alabama than a thousand politicians. Pratt did things, and did them for the material benefit of his State and the betterment of his fellow-men. Politicians talked, and talked to no good purpose and to a disastrous end.

CRITICS OF THE SOUTH.

A Protest Against Interference by Misinformation.

Editor Manufacturers' Record:

With the discussion of labor conditions in the South it is really amusing to note the interest being manifested by some people from New England and from Old England.

Concerning the deep concern they feel because Southern mills employ children and work longer hours than the mills of the North, the Manufacturers' Record's editorial of June 20 is one of the most pertinent comments that has appeared.

How easy to draw pictures—harrowing pictures of poor little tots being worked into premature graves by hard-hearted service, and how easy to make statements in general terms in pathetic appeals to our lawmakers. Yet how seldom can these statements be backed by "specific information." These people who are so earnest, asking our legislature to interfere and undertake to regulate conditions between the employer and employed, should be held to strict proof, and emissaries from the North will be regarded with suspicion mainly because the employ class of that section has ever been the most violent, if not virulent, in its opposition to and bitter hatred of the South, and from this element the "bloody-shirt politicians" have drawn their greatest strength and have found their deepest admirers. But for the prejudice and ignorance of this element, sectional lines could have long since been wiped away.

Had they not closed ears and eyes and hearts to the truth, they would have poured a tide of emigration such as has been going westward, and long ago would have given us a lifting hand.

By helping us to "carry the white man's burden" they might have been themselves lifted, while developing the South and enriching the nation.

Forty years of misdirected sympathy they have bestowed on "the poor black man," and now, when the truth of that matter has begun to dawn upon them, they will apparently turn their sympathy to bewail the condition of white factory operatives in the South, probably knowing as much of true conditions as they knew of the negro and his relation to the Southern people, whose poverty-stricken condition in 1865 was something appalling, and whose pathetic condition then was not generally known at the North, but is now a familiar story to all.

The story of wealth developed since

that time reads like a tale of fiction, yet withal we have been but gathering our strength and power to develop the measureless resources which are lying around us everywhere.

One of the least exploited fields we own is that of manufacturers so long dominated by Old England and New England that we were timid to claim it as a birthright. But now that our native labor is being rapidly trained, and for docility and expertness is found equal to any in the world, there are those who would fain sow seeds of dissension and strife.

Well-meaning and patriotic these people may be, just as the "Yankee school marm" was sincere when she came, at the close of the war, to help colored people hate their Southern neighbors and sow a dreadful discord. They did not intend it that way, but such was the effect.

Now, there may come a time when our factory operatives may need to "invoke the strong arm of the law" to protect them from greed and oppression. When the time comes it will be done, for the people are supreme to correct such evils as exist.

Just now what we most need is to correct the ignorance and poverty engendered by the civil war among our own white population of the rural districts, where the bare necessities of life are so easily supplied until they have largely drifted into a contentment born of ignorance and a kind of drone life, which, like the honey-bee, ceases to labor in a land of perpetual flowers. The factory life has a vitalizing influence on these people, and we see the barefoot mountaineer or pine-woods cracker, with a house full of scant-clad ignorant children, living in a pine-pole cabin or a mountain dugout, moving into the factory town, filling the factory school and church, learning something of the laws of health, of society and of God. We see these people living in painted houses and wearing good clothes and eating wholesome food.

We see them contented and prosperous and happy, and because of cheaper living, better able to save their earnings than are their brethren and sisters in the mills of the North, and we say they have taken a great step forward.

There are no people more bright and naturally quick-witted than the mountaineer element, from which most of our factory labor is drawn, and they eagerly grasp that chance for schooling which puts them forward a step in civilization. Few factories of the South work children under twelve years of age, and most of them maintain schools for nine months of the year.

We are not ready to agitate the question of child labor nor of "labor and capital." These will come in their own good time, and properly come. By the good common sense of our people these matters will probably be adjusted on equitable basis, and the South, more steady-bent on developing the vast treasures so bountifully bestowed by nature, will move serenely on until her riches and power will be known and recognized of the world.

What the South needs most just now is more liberal appropriations by her legislature to maintain or establish technical schools for the training of her youth to industrial pursuits. That is the greatest protection she can throw around her children today; provide a place for the ambitious boys and girls who are clamoring for a chance to learn, so they may learn to take the places of foreigners, who hold the best positions in our machine shops and factories because our own people are not competent to fill them. The South is working up; she is breaking away from

many old moorings, and her traditions, though sacred, are only traditions.

Expansion and the markets of the Far East have opened a vision to her, and the golden glory of the Orient is dazzling her sons with promise. The full significance has not fully dawned upon all the people. Only a few have realized what it all means, but surely we are passing from many an old custom, and some of our cherished theories are giving way to this practical business age, and there verily is a new South—a South which has worked out its own salvation in its own way, and the powers of the North and East have been forced to combine to hold their own against her, and even this will not prevail.

The South of today can paddle her own canoe right well, and will settle her own labor troubles and other troubles. Immigration of good people is coming this way in a steady increasing stream, and eventually, to use a slang expression, "we will get there." More sympathy and less advice would help us, though we are able to get along without either.

EDWIN BROSTON,

Brunswick, Ga.

Drawbacks on the South.

Editor Manufacturers' Record:

I thank you very much for the copy of your issue of June 20. It is a pity that such items as you publish, "For Freedom of Action" and "Negro Colonization Planned by Lincoln," are not published by the Southern country press, instead of their publishing so much stuff in the interest of the howling Yankee haters who too often monopolize the public offices. I am a Southerner in spirit, though not by birth. I came South—against the advice of friends, who insisted that the Southern people would not give a Northern man a chance—because I admired Southern grit and had confidence in the Southern man's candor, and have some as warm friends now among them as I could wish.

But during the sixteen years of my residence here I have been deeply impressed with the fact that the North is a long way ahead of the South in freedom of action and of thought. There exists too much of that hostile spirit in thinly-populated portions of the South that, when you run counter to their religious or political beliefs, find vent in such expressions as "damn black republican" or "damn Yankee." This spirit, I am glad to say, does not exist among the business men of the South, who know that a Northern man does not expect to find enemies, but friends, among his neighbors when he plants his home in Dixie.

It afforded me much pleasure to read the articles above mentioned, as it is another evidence of friendliness, of liberality, of freedom of thought and of speech, which in backwoods and frontier settlements are too often lacking, because the local press is too much burdened with literature characteristically narrow and hostile for a rapid settlement of the country by Northerners, who are largely republican or independent in their politics. It is that everlasting fault-finding spirit that has carried the independent Northern vote to the other party. It is refreshing to know that one of the leaders thought more of principle than boddle when he declined the nomination because the platform did not suit him. But it is more refreshing to know that many Southern men are leaving their old moorings, too. While I number among my friends men of the South with whom and for whom I do business, as well as borrow and loan as our needs in business fluctuate, there is too much hostility created by unscrupulous politicians, more appropriately named Howling Yankee

Haters, who play upon the passions of the honest, hard-working country people, which Judge Speer's address at the University of Georgia so correctly portrays.

OTTO C. BUTTERWICK,
Brooksville, Fla.

STILL BORING FOR OIL.

TWO MORE GUSHERS WORKING IN THE BEAUMONT REGION.

[Special Cor. Manufacturers' Record.]
Beaumont, Texas, June 28.

Since last report there have been two more "gushers" added to the number already decorating Spindle Top Hill. One is known as the Heywood No. 3. This well is located on block 33, Spindle Top Heights, and is owned by the Higgins Oil & Fuel Co., but is under lease to the Heywood Oil Co. This well was drilled in three weeks, a remarkably short time. It is the third well bored by the Heywood Oil Co., which has been remarkably successful in its boring operations. Like the other wells of this company, it is well finished and first-class in every respect. It is equal to any in the field in point of capacity.

Another well added to the number is that of the J. M. Guffey Petroleum Co., which is known as the "Guffey No. 7." It was brought in this week, and is situated on block 22 in Spindle Top Heights. Its depth is slightly over 1000 feet. The experience had with this well was similar to that had with the Lucas well. The oil was struck unexpectedly, and it blew the two-inch pipe clear out of the well and took off the top of the derrick. The oil shot up 200 feet high. There seems to be no diminishing of the force that is behind these ejections consequent upon new wells being brought in.

The "Hogg-Swayne" well has at last been finished, and takes rank among the finished gushers. There are now thirteen complete oil-bearing wells on Spindle Top Hill. There are others that are being bored, which are due to come in during the next two or three weeks. A notable one is that of the Citizens' Consolidated Oil Co., which is down to 500 feet with a 12-inch pipe, and there is every prospect that they will be enabled to finish this well with 12-inch pipe all the way to the oil. If they do, they will have the largest capacity of any single well in the field, as the largest well up to this writing is eight inches in diameter. This well is expected to come in within the next two weeks. By the time the well is completed they will have a short pipe line finished to the railroad tracks, thus enabling them to market oil from the start.

The controversy had with the State in regard to whether or not the State, by law, in selling lands reserved the mineral rights theron has been settled. The Supreme Court holds that the State, in selling the lands, gave title complete to the same, vesting the title in the land and all it contains under or on the earth to the grantee, and therefore there will be no further trouble over this matter.

Whether or not there is an oil well, and if so, the nature of it, at Sour Lake seems to be a problem that cannot be solved by the outside public. The well is being bored by the Guffey Petroleum Co. It has been reported as a gusher on more than one occasion by persons claiming to have seen it. The report has not been denied or verified by the Guffey Petroleum Co., and the facts, therefore, are unobtainable. The impression is very prevalent, however, that there is an oil well at that point, even though it may not be a gusher, and as a result thereof land values have been ascending. Land in the immediate vicinity thereof cannot be bought at \$1000 per acre.

Aside from the above speculative well,

the outside territory seems to be unable to produce a good well. There are wells being bored in many different localities, but up to this writing there is no authentic account of any of them having found oil. Some of these wells are being bored in rather remote districts, and it would be possible, unless they struck a gusher, to strike oil and cap the well unbeknown to the general public. It is not thought, however, that there are any outside wells in as yet. There has been considerable boring in the neighborhood of Houston, but if any wells have been found they have been kept profoundly secret. The outside territory around Beaumont so far is as dry as are the sands of Sahara. Wells have been bored in almost every direction around Spindle Top Hill, but so far not any oil has shown up. It is beginning to be considerable of a mystery to the operators how the oil comes to be where it is if there is no apparent inlet to the pool which supplies the Spindle Top gushers. Resultant of these dusters, land values off the hill have declined very materially, and land which two months since could not be bought for \$5000 per acre cannot now be sold for \$1000. On the other hand, land within the charmed circle has been steadily advancing, and is now firm—so much as there is for sale, which is limited—at prices equal to \$100,000 to \$150,000 per acre.

There is considerable development going on south of Beaumont at and near Sabine, on the Gulf. The German-American well is down 1000 feet. The Coast Ridge Oil Co. has received its machinery, and has now started to bore. The Lone Star Oil Co. of New Orleans, which owns a big well on the Hill at Beaumont, is shipping material into Sabine for the construction of its plant there, embracing tankage, wharves, etc.

THE KENTUCKY OIL FIELD.

INTERESTING SKETCH OF ITS DEVELOPMENT AND ITS PROSPECTS.

[Special Cor. Manufacturers' Record.]
Somerset, Ky., June 27.

The Kentucky and Tennessee oil field, which is now attracting the attention of oil men all over the country, is by no means a new field. The field now being operated, and in which the most activity prevails, comprises Wayne county, Kentucky, and Fentress and Pickett counties, Tennessee. The first well struck in Wayne county was in 1818, when Martin Beatty struck a well while boring for salt near the mouth of Troublesome creek, on the Big South fork of Cumberland river. He was drilling with a crude apparatus, and at a depth of 171 feet he struck a dark heavy fluid at that time little understood by the natives, and it was called devil's tar. For several years oil from this well flowed down Troublesome creek into the Cumberland river, and perhaps the first well struck in the United States. This well was abandoned years ago, and the recent development has not been in this neighborhood, but southwest of Slick Ford, in Wayne county. They sunk a well on the Bertram farm on Carpenter's Fork to a depth of 760 feet, and struck a fine quality of Pennsylvania amber-color oil. This well at the time was considered a large strike, and is steadily producing thirty-five barrels per day. About six weeks ago they sunk a well 500 feet south of Bertram No. 1, which is known as Bertram No. 2. Oil was struck in this well at a depth of about 860 feet, and for a time after the strike it became unmanageable and flowed fully 500 barrels within a half-hour, raising the creek and causing excitement in the oil territory. This well has settled down to a 300-barrel well, which it is now steadily producing. This oil is the same as is found in the Bertram No. 1, known as the Pennsylvania green oil.

In 1867 what is known as the Huffaker well, on Otter creek, in Wayne county, was struck at a depth of 160 feet, and overflowed a rich flow of oil in Otter creek.

As early as 1873, when the Cincinnati Southern Railroad was being built through this country, the southern part of Pulaski county and the eastern part of Wayne county, Kentucky, were leased by oil men, and from that time until now the field has been looked upon as a fine prospective field. Several companies have from time to time within the last twenty years drilled test wells in the territory, but for some reason or other

have abandoned them, presumably on account of the lack of transportation of their product.

In 1891 Col. A. H. Hovey, who was associated with Eastern capitalists, leased a large territory of land near Slick Ford, in Wayne county, and drilled several wells. The Hovey No. 1 was a gusher, and pumped a large volume of black oil similar to the Lima product. Colonel Hovey organized the Kentucky Oil & Gas Co., and associated with him Sayre, White & Tar of Lexington and Paris, Ky., and Hon. O. H. Waddle of this city. The Slick Ford wells attracted a great deal of attention, but by reason of the lack of transportation facilities they were allowed to remain undeveloped.

Mr. W. G. Strubbe and associates of Cincinnati and New York, who control the Kentucky & Tennessee Oil & Gas Co., drilled several wells from 1890 to 1897 from Rugby, Tenn., extending north. What information they gained from drilling these wells has never been divulged. Captain Strubbe, who has spent nearly forty years in the oil business, and who was a pioneer in the Lima (Ohio) fields, has been identified with the Kentucky and Tennessee field since 1873. He is a scientific, practical oil man, and has always believed in the field—that it would some day come in as one of the best-paying fields in the country. Captain Strubbe and his company have a large boundary of oil territory, which they are now developing.

In 1898 the Kentucky Oil & Pipe Line Co. was incorporated in this city. The company was composed of Somerset, Lexington, Paris (Ky.), New York and Michigan capitalists. E. D. Sayre of Lexington was an enthusiastic member of the company, along with Hon. O. H. Waddle of this city, J. P. Hornaday, Robert Kolker, Capt. J. A. Geary and Michigan and New York people. In the fall of 1898 they erected the Slick Ford & Somerset Pipe Line, a three-inch pipe line, extending from Somerset to Slick Ford, in Wayne county. They erected a large pumping station at Slick Ford and a 10,000-barrel receiving station at Somerset. In the spring of 1900 the Kentucky Oil & Pipe Line Co. sold out its holdings to the National Transit Co. This sale was made in consideration of \$75,000, which netted the company a nice profit. The production in the Wayne county field has amounted from 200 to 250 barrels per day up to April of this year, when the Somerset Oil Co. commenced development on what is known as Carpenter's Fork, four miles southwest of Slick Ford, in Wayne county. They sunk a well on the Bertram farm on Carpenter's Fork to a depth of 760 feet, and struck a fine quality of Pennsylvania amber-color oil. This well at the time was considered a large strike, and is steadily producing thirty-five barrels per day. About six weeks ago they sunk a well 500 feet south of Bertram No. 1, which is known as Bertram No. 2. Oil was struck in this well at a depth of about 860 feet, and for a time after the strike it became unmanageable and flowed fully 500 barrels within a half-hour, raising the creek and causing excitement in the oil territory. This well has settled down to a 300-barrel well, which it is now steadily producing. This oil is the same as is found in the Bertram No. 1, known as the Pennsylvania green oil.

The Tennessee end of the field has been in process of development for the last two or three years. About three years ago W. B. Wiser drilled the Bob's Bar well on Obey river, in Fentress county, Tennessee, for a Jamestown (Tenn.) oil company. This well was drilled in 1897

at a depth of 285 feet, and a fine flow of Pennsylvania oil was found. The Bob's Bar was a gusher, and at the time created a great deal of excitement, especially in the Tennessee part of the field. But as there was no means of transportation, and the oil was fifty miles from the railroad, the excitement died out and the development proceeded slowly. The Bob's Bar well has been pumping about twenty-four barrels per day since 1897, and was purchased by J. H. Campton of Boston, Mass., who is president of the Interstate Oil Co. Campton gave \$12,000 for the Bob's Bar well, and several times was on the eve of abandoning his purchase, when he interested the National Transit Co., which is a branch of the Standard Oil Co., to the extent that it agreed to build a 35,000-barrel tank at Bob's Bar and buy the product. This placed Campton in a fine position, and since it has built the tank he has sold the Standard Oil Co. over \$18,000 worth of oil, and the well is now producing twenty-four barrels per day, and from the present indications it is likely to do so for several years.

There are several small wells surrounding the "Bob's Bar." Several of them are owned by a Mrs. Stone of New York and capitalists residing at Jamestown, Tenn.

The Lacey well, which has been a small producer, is now being fitted up, and it is thought that it will develop into a first-class well. The pipe line from Somerset to Spurrier has been fully completed, and the "Bob's Bar" well has been pumped into this place.

Somerset people are heavily interested in the Kentucky and Tennessee field, and were the first to get on the ground with first-class lenses and profitable development. The Somerset Oil & Gas Co., which is composed of O. H. Waddle, Robert Kolker, C. A. Sussner, J. A. Geary of Somerset, Ky., and Roach Bros. of Lexington, Ky., own Bertram No. 1 and No. 2, which is now paying them an income of \$175 per day. On the first day of July the Somerset Oil Co. No. 1 has a 20 per cent. dividend to distribute to its stockholders after paying all of its expenses and laying aside a large fund for further development. Mr. O. H. Waddle of this city, a prominent attorney and capitalist, has been interested in the oil development in Southern Kentucky for the past twenty years. He is one of the largest stockholders in Somerset, Ky., and the recent strike will unquestionably make him a very rich man. Robert Kolker, brother of George Kolker, who is a prominent politician of Cincinnati, is in the Bertram No. 1 and No. 2. Mr. Kolker put in a small amount of money in the development, which has increased in the last few weeks over a hundredfold. He has secured a large amount of territory, and his prospects in the future are flattering. He is an old Cincinnati boy, who has been at this place for about fifteen years.

Cussack No. 2 has recently been brought in with a profitable production. Since Bertram No. 1 and No. 2 has been brought in, jointly producing about 350 barrels per day, the National Transit Co. has extended its pipe line from Slick Ford to Sunnybrook, and from thence to Spurrier, Tenn., a distance of thirty-seven miles. It has erected a large pumping engine at Spurrier and Slick Ford, and is now putting up large receiving tanks in Somerset for the purpose of taking care of the production. Chas. A. Sussner is general manager of the National Transit Co. at this place, and has recently erected a fine metallic telephone from Spurrier to Somerset. Mr. Sussner is an Eastern oil man of large experience, and

is rushing the construction work as rapidly as possible in the oil territory.

A large number of Cincinnati, Louisville, New York, Pennsylvania and West Virginia capitalists are interested in the field. Two large companies have been organized at Cincinnati—the Cincinnati Oil & Gas Co., with a capital stock of \$100,000; Carpenter's Fork Oil & Gas Co. of Cincinnati. These companies both have a home office at Somerset, Ky., and have valuable oil territory in the Kentucky and Tennessee field. They are now sinking a well on Caney creek, near the pipe line. This well is being sunk by the Cincinnati Oil & Gas Co. J. P. Hornaday, an attorney of this city, is attorney and manager of the affairs of the Cincinnati Oil & Gas Co. and the Carpenter's Fork Oil & Gas Co. He has a large acreage of oil territory in Kentucky and Tennessee, and has recently interested a number of Louisville, Cincinnati and Lexington capitalists in the territory.

A number of oil companies have been organized at Louisville, Lexington and Somerset, and within the month a great amount of development will be done in the new territory. Oil men are flocking to the field, and as many as twenty wells are going down between Sunnybrook and Bob's Bar. There are also a number of wells going down on Carpenter's Fork, north of the Bertram farm. Somerset is the center of operations of the Kentucky and Tennessee field. The pipe line, telephone line and transportation facilities to the field center here, and citizens of this place are enthusiastic over the oil development, and are lending every encouragement possible to the development of the Kentucky and Tennessee field.

Several local companies have been organized for the purpose of sinking wells in Pulaski county, and experienced oil men have given it as their opinion that the southern part of Pulaski will be of more value than either Wayne or Pickett and Fentress counties, Tennessee. A large part of Pulaski county has been leased up. Wayne county has nearly all been leased, and there is hardly a piece of property in either Pickett or Fentress county, Tennessee, "loose" today.

The Standard Oil Co. has decided to erect a large oil refinery at this place. Real estate is on a boom, and several new subdivisions will be laid out immediately. The demand for houses exceeds the supply, and Somerset has become the metropolis of the oil development. Nothing in years has caused so much excitement in this part of Kentucky as the recent oil strike.

THE SEARCH FOR OIL.

Report Upon Indications in the South African Belt.

United States Consul-General Stowe at Cape Town has sent to the State Department a report by a mining agent of Kimberley on the indications of mineral oil. The report says:

"The supposed oil belt in South Africa extends from the Ceres district across the country to Mossel bay, on the coast, 250 miles east of Cape Town. The geological formation is the Devonian period throughout, locally known as the 'Bokveldt beds.' The most important oil fields of the Western Hemisphere belong to the Carboniferous and Devonian periods. The marked indications of the existence of petroleum in this belt are small quantities of gas escaping near the contact between the shales and sandstone; iridescent, oily-looking patches of film upon the surface of standing water near these contacts; mysterious fires occurring on the bare veldt, burning for two or

three months at a time. In the Mossel bay district another evidence of the existence of petroleum is found in the shape of a pitchy, bituminous substance between shales in the Gouritz river. The geological and physical character and condition of the rocks in the Mossel district are favorable. The shales of the Bokveldt series are compact and retentive in depth, while the sandstones and other beds of the table mountain sandstone which accompany the shales are well fitted by nature to act as reservoirs.

"In the Ceres, Cape Colony district, the question of the quantity of oil held in the sandstone will depend on four conditions: First, a synclinal trough where the oil can accumulate; second, that both the floor and the roof of the stratum should, to a large extent, be impervious, the floor forming the bottom of the basin to accumulate the oil and prevent it from escaping below, the roof to still further confine it under pressure; third, that a large area of this sandstone should drain to a synclinal trough; fourth, that the country should not be broken by the intrusive action of any igneous rocks. These conditions are fulfilled on the Waggonboom river farm, where the indications of petroleum are most noticeable. The altitude here is about 2600 feet. A pipe line could be constructed over a natural gradient to reach Cape Town, in case a well were sunk at this point. Two small companies have been formed in Kimberley for the purpose of securing prospective rights, and have obtained some 60,000 or 70,000 acres. A syndicate has also been formed at Kimberley, which has secured contracts covering about 200 farms in the Mossel bay district; but, beyond getting reports and putting down a three-inch bore hole to 120 feet on Baily's Gat, nothing has been done in the way of active prospecting. Neither the two Kimberley companies nor the Mossel bay syndicate are in a financial position to carry on the work, nor are they at present able to secure the necessary capital for the purpose. The difficulties surrounding prospecting for petroleum in South Africa are very great, and may be stated as follows:

"First, the urgent want of experienced oil prospectors competent to decide authoritatively on oil formations and conditions, to locate proper spots for boring, and to conduct operations to any necessary depth; and, second, the want of capital. The area of country showing indications is so great and the land so cheap that it might be worth the serious attention of Americans interested in the oil industry. There are no laws in Cape Colony referring to petroleum mining, and up to quite recently the Crown has claimed no rights whatever, but the surveyor-general has had such rights reserved in all recent issues of titles to Crown lands. The contracts made give the companies from three to five years' prospecting rights free of charge, with use of wood and water included; in the event of any payable mineral being found, a 25-year lease to be granted to the concessionaires, without any premium on a royalty of 5 per cent. of the net profits. The contracts do not stipulate for work to be commenced within a stated time, and in most cases they give the option of the purchase of the farms outright for a moderate sum.

"Africa stands seventh in value of exports of refined mineral oils from the United States."

The Riter-Conley Manufacturing Co. of Pittsburgh, Pa., has secured a contract from the J. M. Guffey Oil Co. to build a number of tanks for this company in the Texas district. It is also stated that the Riter-Conley Company has secured a contract to furnish ten tanks for the Missouri, Kansas & Texas Oil Co. The

tanks will have a capacity for 75,000 barrels each. It is also stated that the company has made arrangements to build a number of barges to be used for transporting oil.

Texas Oil and Fuel.

The Commercial Intelligencer of London, referring to the "striking of oil in Texas," says: "One of the immediate effects of the opening of this new source of fuel supply is to place all industrial establishments in the South depending upon steam-power upon a more favorable economic basis. This applies to cotton mills, to cottonseed mills and all others where coal fuel has hitherto been an expensive element in the cost of production. The producers of fuel oil are well aware of this opportunity, and are making provision to distribute oil at all railway points and points accessible to navigation. The influence of this new factor will be felt far beyond the localities directly affected. If the use of fuel oil becomes extensive enough it may materially reduce the price of coal at the lower Mississippi centers of consumption, and also give a new stimulus to manufacturers in Texas and adjacent territory. The competition of the South in the cotton trade is also likely from this cause to be more severely felt by British manufacturers."

The Pig-Iron Market.

Matthew Addy & Co. of Cincinnati in their weekly report say:

"July has opened in a decidedly promising way. There are large inquiries for practically all kinds of iron, and there have been heavy sales of basic, gray forge and 2 foundry. June went out with a rushing business, which is still continuing. The large orders mentioned are for shipment over the last half of the year. The demand for small lots for either immediate shipment or shipment over sixty days has been growing, and is a greater feature of business than previously. The tonnage of orders of this kind has been very considerable. In addition to the actual inquiries, there are many consumers who are feeling the market. This is in itself a good sign, as it indicates that not much is needed to induce these consumers to actually enter the market. There has been some interruption to the loading of iron recently by reason of the excessively hot weather. The heat has been so great that it has been difficult to load iron as fast as is usual, and this has led to quite a little complaint, as many consumers are running so close to the danger line that a delay of a few days means a good deal to them."

Money and Brick in Demand.

[Special Cor. Manufacturers' Record.]
Spartanburg, S. C., June 29.

The following dividends are to be paid on July 1 by the mills which have headquarters here: Arkwright Mills, 3 per cent. on \$200,000 capital; Clifton Mills, 5 per cent. on \$1,000,000; Cowpens Manufacturing Co., 4 per cent. on \$60,000; Mary Louise Mills, 4 per cent. on \$20,000; Converse Company, 5 per cent. on \$300,000; Pacolet Manufacturing Co., 5 per cent. on \$1,000,000; Spartan Mills, 5 per cent. on \$1,000,000; Whitney Manufacturing Co., 3 per cent. on \$274,000; Tupacau Mills, 4 per cent. on \$269,000. Other corporations here with capital ranging from \$500,000 to \$10,000 will pay dividends of from 2½ to 5 per cent.

The three large building and loan companies here have loaned their money far ahead, and as there are so many improvements under way at this time, every dollar is in action. Right now two \$20,000 houses, three others costing \$10,000, a new schoolhouse to cost \$12,000 and a

\$14,000 dormitory for Wofford College are under construction. Within twenty miles of the city two large cotton factories are being built. Never before was there such a demand for brick here as now.

Industry and Immigration.

Editor Manufacturers' Record:

In traveling over our beautiful Southland and comparing the waste places of a few years ago to the productive fields and factory towns of today we are filled with gladness and wonder at the reformation. This change has not come in a day, although the rapid strides in many sections are truly great, but it is the result of years of perseverance and of the condition of the times. It is no flattery to say that the Manufacturers' Record deserves a large share of this honor, and its heroic fight when there were few to battle has borne a rich harvest. The newspapers of the South have gradually taken up the industrial banner, and now fling it to the breeze in every quarter. This is a hopeful sign of the times, and will add greatly to the development of the country. One of the first things a prospective settler and every intelligent inventor wants to see is a copy of the local paper, and will nearly always subscribe, so as to keep posted on the local events. I always think well of a community when I read a newspaper full of industrial news and items of interest to immigrants.

The various railroad systems traversing the Southern States work in the industrial development of the country. Of course, they do so from a business point of view, which should be an object-lesson to every community in the South. Many of these railroads own large areas of vacant lands which they are desirous of settling with industrious farmers, thus increasing the freight along their line, while other systems do not own an acre of vacant farming lands, but employ the best talent they can get and maintain a regular industrial and immigration department for the purpose of increasing the number of industrial enterprises and encouraging homes seekers along their lines, thereby enlarging the travel and traffic in years to come. The railroads find it pays them in all events, and the road without a land and immigration department in the South now is very much behind the times, and nothing is known of it or the country through which it runs outside the State.

In my experience and observation of over seven years in the Southern immigration business, comprising both successes and reverses, I am led to believe that it is possible for every town of a few hundred inhabitants to increase the population and to enhance the value of property without much difficulty or expense to the community. It will be necessary to do so in a well-organized and systematic way, which will not only bring about the desired results, but should prove a handsome investment, returning in dividends more than the original outlay. I would suggest the formation of a stock company of \$5000 to \$10,000, divided into small shares, so that any and every citizen could take one or more shares, and thus make everyone feel directly interested in the success of the enterprise and the advancement of the community. All property-owners desiring to sell or rent property should list the same with the company at a reasonable commission, payable to the treasurer. A capable man should be employed as secretary and the manager, whose duty shall be to prepare all advertising literature, conduct the correspondence and sell the property. Every courtesy should be extended to intending investors and prospec-

tive settlers, always representing matters of fact in a reliable and polite manner. The salary of manager, expenses of office, literature and so forth should not exceed \$2500 per year, and probably much less. It would be a poorly-conducted department of development upon this plan which would fail to locate a dozen families each year, besides one or more industrial enterprises. Twelve families investing on an average \$1000 each, on which the company would charge 10 per cent. commission, would amount to \$1200 earnings; besides, each family would produce and consume an average each year at least \$5000, which means \$6000 added to the circulation of the community. The railroad, the merchant, the doctor, the lawyer, the blacksmith, the editor, the preacher, the teacher—in fact, every business and professional man in the community has been benefited directly or indirectly by the settlement of these new families. Their earning capacity will increase from year to year, and they will also be instrumental in bringing to the community other friends and relatives.

In this way very many of the objectionable features are obviated, while the desired results manifestly increased. Very little good can be accomplished in any community in the way of influencing immigrants to settle where a division exists among the citizens and the newcomer is nagged on all sides by parties wanting to sell property. Any respectable person will become disgusted with the situation and leave, never to return.

The importance of advertising the advantages of a community is apparent to every intelligent person, as people do not often look for places about which they know nothing.

E. C. ROBERTSON.

Griffin, Ga.

TO ATTRACT INDUSTRIES.

Judge T. J. Latham's Plan for the Advantage of Memphis.

Judge T. J. Latham of Memphis has offered to be one of fifty men who will contribute \$1000 to establish a fund for the encouragement of manufacturing enterprises in that city. He was the president of the Memphis Industrial League, which, during its existence, did much to attract outside industries to the city. In explaining his plan for a revival of the league on a broader basis Judge Latham, according to the Memphis Commercial Appeal, calling attention to a wagon company which he desires to bring to Memphis, said:

"This concern employs between 200 and 300 people, most of whom would come with the company if it decided to move. With them will come their families. It is a wagon company of national reputation, and is extensively in the market in the Southern States. This company is doing well where it is, but its business interests are building in the South, and Memphis offers the most attractive site for locating. It is capitalized at \$200,000, and has always been a profitable investment to the stockholders. To make the move will require a building site and about \$10,000 or \$15,000. This money is not given to the company, but is merely loaned, and is protected by first mortgage bonds."

The purpose of the fund which Judge Latham would raise is to meet such emergencies as this. He would suggest a thorough examination as to the financial standing of such a company, and if advisable advance the money, accepting the security of the first mortgage bonds, and in doing so he says the important plant can be secured within a month's time.

"The value of smokestacks cannot be overestimated," he said; "the city needs

more of them. I would like to see 100 stacks appear within the next year. It would mean a greater boom to Memphis than anything else."

Commenting upon the plan the Commercial-Appeal adds:

"There are so many advantages to be enjoyed here. The public is just beginning to understand that it is the manufacturing interests which give life to a great city. It is to secure factories that the league will be organized. When an application is then made from a concern looking to this city with the view of moving its plant here, the secretary can give the matter his entire attention. The trouble has been heretofore that such letters have been addressed to the exchanges or the Business Men's Club, neither of which has authority to act in such matters, and the applicant, finding his approaches so indifferently received, goes elsewhere, believing he is not wanted.

"With a live, active secretary, posted in statistics and in a position to answer all questions asked regarding the advantages of the city, the good work started two years ago can be continued. There are seventeen extensive concerns asking a hearing in Memphis. Some expect to have the expenses of making the move paid here; others desire some inducement of a financial character; still others are willing to come to Memphis if they can find a suitable site free of cost to them. Judge Latham believes that it will be desirable to collect the active, progressive business men and reorganize the league first, and after that has been done to take up the matter of raising a fund to be used as described before.

"A large manufacturing company, capitalized at \$500,000, recently agreed to come to Memphis provided a number of its bonds were floated here. It employed 600 people and shipped its goods all over the world. It did not ask for an appropriation, but that \$50,000 of its bonds be floated in order that it could rebuild its buildings here and defray all of the expenses of heavy moving, including machinery. The bonds were to be first mortgage bonds, and were offered as gilt-edge securities. Judge Latham placed \$35,000, but was taken ill and had to abandon the enterprise, which has since satisfactorily located in another city, bringing to that place an addition to the population of over 600 families. To grow, one of the most valuable tonics is the manufacturer, and it is to encourage manufacturers that the fund must be raised.

Judge Latham says that Memphis is one of the best-advertised towns in the South; that the sudden increase in population is attracting the eyes of the commercial and manufacturing world in this direction, and if the citizens will take the proper interest and will pull together, as the citizens of other prosperous cities have done, Memphis can be made the manufacturing center of the South.

"In St. Louis, Judge Latham says, the city Board of Trade never objects to paying for a manufacturing plant at any price. A concern which is capitalized at \$500,000 and employs 600 men is a cheap investment for any city at \$50,000. This same plant will, he adds, do much more toward building up the city than \$50,000 expended in any other way. He says that he is willing to put up \$1000 at once or at any time if he can find fifty gentlemen willing to do the same thing, and that the sum shall be devoted to securing important manufactures, to begin with the big wagon plant and to include a glass-manufacturing concern that sees a fortune to be made out of Memphis sand.

"The matter will be seriously considered as soon as the industrial league is organized."

FOR FLORIDA AND GEORGIA.

Industrial Possibilities in the Culture of Sugar-Cane.

In the hope of attracting attention to the possibility of a profitable industry beneficial to the farmer, the merchant and the mechanic, Mr. W. L. Glessner, commissioner of immigration of the Georgia Southern & Florida Railway, has issued a statement about the growing of sugar-cane in Georgia and Florida. He says:

"While sugar-cane has been successfully grown in Georgia and Florida from their earliest settlement, and for a time crude sugar was made, its extensive cultivation was superseded by cotton. During the past few years, when the price of cotton was low, attention was again called to the possibility of profitably manufacturing sugar in Georgia and Florida. Samples of cane were analyzed by Dr. W. C. Stubbs, director of the Louisiana sugar experiment station, recognized as the highest authority on the growing of cane and manufacture of sugar, and the analysis showed the Georgia and Florida cane to be from 20 to 25 per cent. richer in sugar content than the Louisiana cane.

In Louisiana the average yield is thirty tons per acre, while in Georgia and Florida the average yield is fifteen tons, from which it would seem that Georgia and Florida could not successfully compete with Louisiana. In a personal interview with Dr. Stubbs the writer presented this statement to him, to which he replied that the increased sugar content of the Georgia and Florida cane would largely make up the difference in the yield, while the increased cost of production in Louisiana, by reason of the maintenance of expensive drainage canals and ditches, and the heaviness of soil, necessitating more work and more expensive implements, would more than make up the remaining difference and leave an advantage in favor of the Georgia and Florida producer. It being shown, then, that we can grow cane as cheaply as in Louisiana, where for many years it has proven a profitable crop, the question arises, why cannot we profitably engage in the manufacture of sugar?

"One thing which has long stood in the way has been the estimated cost of a manufacturing plant, the ordinary estimates running from \$125,000 to \$500,000. To enlist home capital in an experiment of this extent was not possible, and it was not to be hoped that foreign capital would rush in where we feared to tread. Presenting this view of the matter to Dr. Stubbs, he replied that it was possible for any community to establish a plant that would work up 200 tons per day; that such a plant could be erected at a cost not to exceed \$20,000, and it would turn out white granulated sugar ready to go on the general market, and which would always command the open-market price. Understood, this product does not have to go through a refinery, but is merchantable sugar. Dr. Stubbs estimates that Georgia and Florida cane will yield 200 pounds of sugar to the ton, and that it will cost \$2 per ton to manufacture it. In figuring the cost of manufacturing, the services of an expert chemist are included. It is usual for the mill to pay the grower for his cane one-half the price of sugar. Say sugar is worth four cents per pound (at this date it is worth a fraction over five cents), the grower would receive two cents per pound, and if a ton of cane produces 200 pounds of sugar, the grower would receive \$4 per ton for his cane, making \$60 per acre on a yield of fifteen tons per acre. As cane is as easily grown as corn, and can be cultivated on as large a scale, it would prove a profitable crop for the grower.

"Taking these figures, and estimating that the plant could only be run thirty days in the season—and we have every reason to believe that it could be run sixty days—we have the following result:

200 tons cane @ \$4 per ton, per day.....	\$800
Cost of manufacturing @ \$2 per ton, per day.....	400
Cost per day.....	\$1,200
10,000 pounds sugar per day @ 4 cents per pound.....	1,600
Net profit per day.....	\$400
Net profit for 30 days.....	12,000

"The figures we have given are conservative, and show a profit that should induce local capital to invest in such an enterprise. To the cost of the plant (\$20,000) should be added a working capital of \$5000, making a capital of \$25,000, an amount which ought to be easily raised in a neighborhood. A thirty days' run would work up the product of 400 acres, an amount easily raised within convenient distance of the mill, even if the individual growers planted but five or ten acres each."

North Carolina at Charleston.

Mr. T. K. Bruner, secretary of the North Carolina department of agriculture, has engaged about 3500 square feet of space for the North Carolina exhibit at the Charleston Exposition. In an interview in the Charleston News and Courier he said:

"I have been greatly surprised and pleased at the extent of the work so far accomplished on the grounds of the Interstate and West Indian Exposition, and particularly pleased with the picturesque location and the artistic distribution of the elegant structures now under way. The ensemble promises to be one of the most delightfully picturesque presentations I have seen, especially when the lakes and foliage are at their best.

The North Carolina exhibit will comprise for the most part a large collection of the metalliferous ores, consisting of gold, silver, copper, iron, and building stones, such as granite, gneiss, sandstone and marble. In addition to these, it is proposed to bring a large number of the rarer metals, both ornamental and economic, such, for instance, as talc, mica, corundum and pyrope, garnet, kaolin, monazite, zircon, etc. In addition to these, there will be a collection of 300 to 400 gems, consisting largely of beryls, blue, green and yellow; rubies, sapphires, rutile quartz, amethysts, topaz, rhodolite, hiddenite, etc.

The forestry exhibit will be extremely fine, consisting of both disks and sections from the trees, polished with the bark on, and supplemented with commercial forms of the same; that is, manufactured furniture from the timber. This division will be made very interesting to the visitor, as a full history of each species will be given.

The agriculture of the State and its horticulture, including grains in the sheath and shelled from the hull, will be well represented. The trucking interest of the State will be represented by a small exhibit, but the fruits of the State will all be shown most vividly.

In addition to these, the natural history of the State will be used in embellishing and ornamenting the collection. It is hoped to use about 4000 feet of space in the mineral and forestry building, and it will be installed in the finest possible manner. The furnishings will be new, made of quarter-sawed oak, and with plate glass."

A dispatch from Pensacola states that New York capitalists intend to run a line of steamers, beginning August 1, between New York and Pensacola in connection with the Louisville & Nashville Railroad.

THE COUNTRY'S MINERALS.

Production of the United States in 1900.

The total value at the place of production of the mineral and metal output of the United States in 1900 was \$1,365,608,583, as compared with \$1,218,214,637 in 1899, a gain of \$147,393,946 for the year.

Of these vast sums, which are without precedent in the history of the mineral industry, ores and minerals contributed \$672,000,416 in 1900 and \$587,268,798 in 1899; metals, \$524,432,533 in 1900 and \$496,057,320 in 1899; secondary products, \$72,720,695 in 1900 and \$64,416,979 in 1899, while the value of metals smelted or refined from foreign material was \$96,364,939 in 1900 and \$70,471,540 in 1899. In these gross totals of value are included certain duplications, such as those of the manganese and iron ore used in making ferro-manganese and pig-iron; bauxite used in making aluminum and alum; coal used in making coke; lead used in making white and red lead and litharge, and a few other duplications, the whole amounting in 1900 to \$116,768,662, and in 1899 to \$92,581,031. Deducting these amounts and also the values of the crude foreign ores or metals smelted or refined here, the net value of the mineral industry of the United States was \$1,152,474,982 in 1900, and \$1,055,162,066 in 1899. The increase last year over 1899, therefore, amounted to \$97,312,916, or 9.2 per cent.

The chief item of our great mineral production in quality, value and economic importance was coal, the production of which in 1900 was 268,315,431 short tons, an increase of 16,210,044 tons, or 6 per cent., over 1899. The value of this production at the mines was \$322,521,530, or 28 per cent. of the net total. To this may be added the coke made, which reached a total of 19,206,894 short tons, valued at \$50,272,050.

Pig-iron was second in order of values, as well as in economic importance. The total in 1900 was 13,533,265 long tons, or, including 255,977 tons of spiegeleisen and ferro-manganese, a total of 13,789,242 tons, with an approximate value of \$273,110,322. It is these two products, coal and iron, which we produce more abundantly and more cheaply than any other country in the world, that are giving the United States the economic leadership of the world, and will enable the nation to hold that place.

In point of value copper comes third on the list, its production last year being 600,832,505 pounds, with a value of \$97,755,449. The increase over 1899 was comparatively small.

Gold holds only the fifth place, with a total value of \$78,159,674—less than one-fourth of the value of coal, or one-third of that of pig-iron. It was nearly approached in value by petroleum, with a total of \$74,246,582, and was exceeded by the clay products, with a total of \$78,704,768. Few people would suppose that the varied clay products—brick, tile, pipe and the like—exceeded in their total values that of our large output of gold, but such is the fact. The production of silver had a market value of only \$36,576,900. Building stone was rated at \$41,400,500 last year.

Other products of importance in 1900 were 275,907 short tons of lead, valued at \$24,115,272, and 123,231 short tons of zinc, valued at \$10,879,682.—Engineering and Mining Journal.

The sales in the Joplin (Mo.) district during the first six months of the year amounted to 133,694 tons of zinc and 16,989 tons of lead ore, valued in all at

\$4,019,384. The sales during the last week in June were 1238 tons of zinc and 213 tons of lead more than the same week of last year, and the value was \$46,862 more.

REASONS FOR SUPERIORITY.

Why Contracts for Bridge and Other Work Are Captured.

[From London Standard, June 4, 1901.]

To the Editor of the Standard:

Sir—With reference to the article in the Standard of this day's date, on the indictment of the Indian railways for bad management and partiality to foreign engineering firms, by Sir Alfred Hickman, I shall feel obliged if you will bring before your readers the following extracts from letters which I have received from an engineer who is now engaged in the inspection of bridge work and railway material in the United States of America. The letters from which the extracts were taken are dated May 6 and May 16, 1901, respectively:

"I had an idea before I came out this time that the Americans made good, but rough, bridge work; but this is quite a mistake. The work is as well finished as any English work, and quite as good, if not better than any turned out in England, both as regards workmanship, finish and material. I am only now speaking of the — Co., as they are turning out a splendid job in every way. * * * I have a good deal of testing, but luckily the steel is excellent, and there is no attempt to scamp in the shop. * * * The drawing-office methods are excellent, and the way the drawings are made out and tabulated is most workmanlike."

After describing, in too great detail to be reproduced here, the numerous and ingenious methods of economizing labor and ensuring good work (in which the Americans appear to be far more progressive than the majority of English workshops), the engineer writes:

"Live rollers are used very much, and ordinary rollers to every machine. Much fewer workmen are used, and they work much harder. They do not limit the output of a man as they do in England."

These remarks speak for themselves, coming, as they do, from an experienced engineer, who for several years managed a large bridge-building establishment in England. There is no doubt that the workshops of the United States can compete successfully with those of Great Britain, both as regards price and workmanship, but the secret of their success lies chiefly in their perfect organization, and in the use of labor-saving appliances. The high rate of wages prevailing in the United States acts as a powerful stimulus both in the invention and in the adoption of labor-saving machinery to an extent that more than counterbalances it. At the same time they are not handicapped by any limitation of the output of the workmen.

It is childish to raise the cry of partiality. The blame lies partly with those who do not follow up the lead of the United States in adopting labor-saving appliances, but chiefly with those who, for political purposes, connive at the insane policy of trades-unions in limiting the output of the British workman.

I am, sir, your obedient servant,

GUILFORD L. MOLESWORTH,
Late Consulting Engineer to the Government of India for State Railways.
The Manor House, Bexley, June 1.

During the fiscal year the value of exports from New Orleans was \$151,087,623, an increase of \$36,431,672 over the preceding year, and the value of the imports was \$20,683,910, an increase of \$3,198,099.

RAILROADS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

The Pennsylvania to Cape May.

In the broad and liberal plans and scope of the Pennsylvania Railroad in mapping out its summer schedules and excursions to the mountain and the sea that great corporation, as usual, has paid its annual compliment to the press of Washington, Philadelphia and Baltimore. The newspaper men and their wives of these cities joined in the annual excursion to Cape May given by the Pennsylvania on the 28th ult. A handsomely-appointed vestibuled train left Washington at 9:30 A.M., arriving at Baltimore an hour later, when the Baltimore contingent joined the party. The run to Philadelphia was made in remarkably quick time, and, arriving at Broad Street Station, a lunch was served, after which the start for Cape May was resumed, the party being increased by the members of the press of Philadelphia and other points in Pennsylvania. The itinerary as outlined for the trip was carried out handsomely, and with perfect weather the annual was one of the most enjoyable ever given by the road. Gen. J. R. Wood, general passenger agent, joined the party at Cape May. Mr. George W. Boyd, assistant general passenger agent, assisted by Major F. M. Barksdale, chief of literary bureau of the Pennsylvania Railroad, with their usual courtesy, created many new and interesting features for the enjoyment of the excursionists. The Baltimore newspaper men were in charge of Mr. Bernard Courlander, Jr., district passenger agent, and received every attention from that efficient officer. The "Stockton," in charge of Horace M. Coke, gave the party all the luxuries of the season, and were royally entertained by that old and popular hotel manager.

Southern Pacific Improvements.

Advices from Chicago are to the effect that the Southern Pacific Railway Co. has decided upon very elaborate plans for improvements, which will be carried out within the next three or four years. As readers of the Manufacturers' Record are aware, a considerable mileage of the system has been relaid with heavier rails, and since the company obtained an entrance into Galveston several million dollars have been expended in completing tidewater terminals on this harbor. It is understood, however, that the improvements referred to do not include those which are being carried out, but will represent an entire outlay of nearly \$40,000,000. In spite of the betterments thus far made, a considerable mileage of the line is laid with rails which are unsuitable for the operation of the heavy modern locomotives in service on the principal American lines and the size of the passenger and freight cars now in use. It is stated that 80 and 90-pound rails will be substituted for the lighter metal, and that a number of grades on the mountain sections of the road will be either eliminated entirely or reduced so that the use of extra locomotives in hauling freight trains over them will be unnecessary. A number of curves which exist in the mountain districts will also be avoided by tunneling and excavation of cuts.

Waco's New Depot.

The depot for the Missouri, Kansas & Texas system at Waco, Texas, has been completed and placed at the disposal of the traveling public. Although a number of large structures of this kind have recently been

completed in the South, the station in question has few equals in modern depot architecture in the United States. The building proper is about 200 feet in length and fifty feet in width, the first floor being divided into the usual waiting-rooms and offices. The second floor is utilized for offices of the company. From the center of the building rises a tower to the height of sixty-eight feet. In connection with the depot is a trainshed 300 feet in length.

Plant Lines Consolidate.

The stockholders of the Plant Railway & Steamship Co. have ratified the decision to consolidate six of the principal lines in this system under one corporation, which, it is stated, will be known as the Savannah, Florida & Western, taking its title from a portion of the main line of the system. The roads included in the merger are the Savannah, Florida & Western, the Charleston & Savannah, the Brunswick & Western, the Alabama Midland, the Silver Springs, Ocala & Gulf and the Tampa & Thonotosassa. The plan of consolidation provides for one president and set of general officers for the combination, and an issue of securities which will cover the consolidated properties.

Another Georgia Line.

A company representing several directors in the Central of Georgia Railway have applied for a charter for the Columbus & Arlington Railway Co., to be built between the towns of this name in Georgia, an estimated distance of ninety miles. At both terminals connection will be made with the Central of Georgia, and it is understood that the road is intended to open up a section of Southwest Georgia which will create an extensive local traffic. Among those interested are President John M. Egan of the Central of Georgia and Mr. J. F. Hanson of Macon, chairman of the board of directors.

Dothan, Hartford & Florida.

Mr. J. P. Pelham, president of the Dothan, Hartford & Florida Railway Co., gives the Manufacturers' Record further information about this line to the effect that about eighty miles of it will be constructed through pine timber land. It is expected to complete surveys before July 15, and, according to Mr. Pelham, a Northern syndicate has become interested. The total length of the line is 117 miles, and it is stated that at St. Joseph's, Fla., the tidewater terminus, a harbor is available which has a depth of thirty-six feet.

Tampa Bay & East Coast.

A dispatch from Tampa, Fla., is to the effect that the Tampa Bay & East Coast Railway Co. is making appropriations to construct terminals near what is known as Port Tampa City. It is stated that vessels drawing twenty-three feet of water will be able to load at the company's proposed docks. As already announced in the Manufacturers' Record, the railroad is to be built between Tampa and Bartow, Fla., with several branches. R. G. Rhett at Charleston, S. C., is president of the company.

To Be Extended.

In a letter to the Manufacturers' Record Mr. John W. Maxey of Houston, Texas, engineer of the Orange & Northwestern Railroad, now under construction between Orange and a connection with the Kansas City Southern system, writes that work is now in progress, and that it is expected to let contracts for thirty miles additional as soon as the present work is completed. The company

may require a quantity of relaying rails, also rolling stock, in the near future.

Port Arthur's Development.

A dispatch from Port Arthur, Texas, states that the Kansas City Southern Railway Co. has become interested in several lines of steamships. It is expected to arrange a regular service between Port Arthur and South America, Port Arthur and Europe, and a schedule to Northern seaports of the United States. It is understood that a number of vessels of the whaleback pattern will be utilized for carrying oil in bulk from Port Arthur.

Philadelphia to Charleston.

A dispatch from Philadelphia is to the effect that the Trades League, which was instrumental in organizing a line of vessels between Philadelphia and Savannah, has taken up the project of a line between Philadelphia, Charleston and the West Indies. Statistics are now being secured with the view of ascertaining the amount of probable traffic which can be secured.

Railroad Notes.

The Atlantic Coast Line has decided to add 100 freight cars to its rolling stock, and will construct them at its shops at Wilmington, N. C., as it is found that the material and workmanship here satisfy all its requirements. The cars will have a capacity for forty tons each.

Furniture Made High Point.

In a paper on furniture manufacturing in the South Mr. E. M. Armfield of High Point, N. C., said:

"Permit me to give a few facts in regard to the manufacture of furniture in High Point, N. C., as I am more familiar with the factories of that place, and as it is a representative Southern manufacturing town. The first factory there, the High Point Furniture Co., began work in 1889. They first made cheap chamber suits. Now there are thirty-three factories, one for every 150 people. Thomasville, seven miles from High Point, has twelve, which manufacture every article of furniture which man needs from the time he lies in his cradle until he sleeps at last in his coffin within his windowless palace. It would be tedious to mention the name of the different factories and their managers and the various articles of furniture manufactured, which include everything that is needed for use and ornament in a modern dwelling, business house or office. These goods are shipped to every State of the Union, and to some foreign countries.

"The factories have been uniformly and remarkably successful. Regular dividends ranging from 10 to 25 per cent. per annum have been paid in nearly all cases. Stock sells at a good premium without exception. Not \$10,000 worth of stock is owned out of town, and none outside of the State. Many stockholders are young men and boys now at work at the benches. All labor employed is white with the exception of a few negroes who drive drays and handle lumber about the yard. An air of thrift, cleanliness and prosperity pervades the entire town. There is nothing about the work that is degrading mentally, morally or physically.

"It is no uncommon thing for the sons of the richest men in the town to begin by turning a lathe by the side of men who support their families on one dollar per day or less.

"The furniture factory has made High Point what it is today, and already it is widely known as a furniture-manufacturing town."

FOREIGN TRADE.

This department is designed to set forth opportunities for the extension of the trade abroad of American manufacturers, and to record facts about the rapidly-developing commerce of the South.

FIGHTING FOR SUPREMACY.

The Contest for Trade in Iron and Steel.

The fight for supremacy in the iron and steel trades is the Waterloo of commerce, and victory has not been with us. There are times when figures sum up a history. They do in the steel trade. Ten years ago England was by far the largest producer of hard metal in the world. America took each year great quantities of our iron and steel, while our manufactured steel goods went everywhere, and everywhere were placed in the first rank. We held the field with all competitors out of sight.

In 1884 England produced nearly twice as much pig-iron as the United States. By 1890 America had caught us up; last year the United States produced half as much more as England. During these years England increased her output by about 23 per cent.; the American output rose considerably over 300 per cent. For many years we sent large supplies of pig-iron to America; in 1890 we sent America less than 20,000 tons, while America sent us over 80,000 tons. Last year the American imports rose in value 70 per cent., from £219,000 to £350,000. For the first four months of this year the American imports were worth £80,000, as compared with £47,000 for the corresponding period last year.

But pig-iron is, after all, not the most profitable article, and if the invasion of the iron world ended there we might regard it lightly. Let us take the more serious item of unwrought steel. In two years the value of American cargoes of steel landed in this country has increased over 600 per cent. Between the first four months of last year and this the rise has been almost incredible. From January till April, 1900, America sent us less than 4000 tons, valued at £33,000. In the same months this year the imports were over 44,000 tons, worth £250,000. With a multiplication of 1100 per cent. in one year, we can no longer treat the matter with indifference.

But unwrought steel has nothing like the labor value of the same article when turned into manufactured goods. In the making of iron and steel goods we are falling far more behind America than in the production of raw material. We had sixty years' start, we had the field to ourselves; now we are handing not only foreign and colonial markets, but our home trade over to our rivals.

The Washington Bureau of Statistics has just prepared a return showing the quantities of American iron goods sent to England last year. Among the items are these: Locomotives, 84; stationary engines, 128; wire, 13,847 tons; car wheels, 5735; electrical machinery, £313,000; boilers and parts of engines, £20,000; pipes and fittings, £178,000; pumps and pumping machines, £150,000, etc. These, be it noted, are almost without exception articles in which a market has been created here within the past five years.

The American bridge competition is typical of the whole. Ten years ago England was first in the industry, now England is very much second. Here each engineer makes his own patterns and endeavors to give his designs an individual touch which shall be the distinctive mark of his work. The Americans have standardized their patterns. Their large practice in constructing new ways in the

West has enabled them to perfect their plans, and they have fitted up most elaborate bridge-building machinery. They have reduced the work to an exact science, and, thanks to standardization, the putting together of the greatest bridge is like putting together the parts of a Waltham watch. Hence, American bridges today are cheaper, simpler, better designed, and can be much more rapidly constructed than any we can make.

This was first seen when contracts were asked for the making of Atbara bridge, a structure of 622 tons. The English wanted twenty-six weeks for construction. The Americans offered to do the work in fourteen weeks for £10 13s. 6d. a ton. Our manufacturers complained of favoritism when the Americans got the contract.

For the Gokteik viaduct, in Burma, the difference was still more striking. This is a much larger work of 4332 tons. The Americans asked £15 a ton and one year for construction. The English wanted £26 10s. a ton and three years to complete the work. For the Uganda viaducts of 7000 tons, the Americans named £18 a ton and forty-six weeks' time, the English £21 12s. 6d. and 130 weeks' time. In each case the work was given out under English engineers, Sir Douglas Fox for Atbara and Sir A. Rendel for Gokteik and Uganda. If there had been anything like equal competition they and the official authorities over them would naturally have preferred English makers. But even patriotism must draw the line at giving the English maker 60 per cent. more and delaying your work two years while he does his share.—Fred A. McKenzie in London Daily Mail.

American Products in Spain.

In spite of the recent war with Spain, the American consul-general at Barcelona states that a really wide opportunity is offered American exporters in that country. Such articles as electrical apparatus, typewriters and general machinery have already obtained a foothold, while it is a fact that American hams are sold in many of the southeastern cities of Spain, although bought from English merchants, who, in turn, have secured them from the United States. An electric railroad company at Barcelona has purchased all its rolling stock in the United States, and seventy tons of sugar machinery recently comprised a shipment from an American manufacturer to a Spanish customer.

Mr. Ramon de Brugada of Barcelona, Spain, who is desirous to represent American interests seeking trade in Spain, writes to the Manufacturers' Record that the most suitable articles for such trade are leather for boot manufacturers, coal, wool, cotton, jute, hemp and linen.

Brunswick as a Seaport.

President E. C. Machen of the Brunswick & Birmingham Railroad Co. recently visited Macon, Ga., and in an interview relative to the possibilities of Brunswick as a seaport is quoted as saying:

"There is no such harbor between New York and the South American coast as the harbor at Brunswick, and I cannot see why this splendid harbor has remained undeveloped for so long a time. The receipts of the Brunswick harbor the past year amounted to \$27,000,000, and with the material advantages the Brunswick & Birmingham Railroad will give Brunswick, I would not be surprised to see the receipts of the magnificent harbor leap to \$100,000,000 next year. The fact is, I will be greatly disappointed if this does not occur."

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

Cotton in Turkestan.

Cousin Hughes of Coburg quotes from German reports that the increase in the production of cotton in Russian middle Asia, Bokhara and Khiva in 1900 shows a notable increase over the preceding year, which is chiefly attributed to the use of first-class American seed. Most of the former corn fields are being planted with cotton, so that a total of 7,780,000 cwts. can now be raised. The general increase of cotton planting in Asiatic lands was 44.5 per cent. over the product of 1899, the increase in the Russian districts being 28.5 per cent.

Athens' New Knitting Mill.

Messrs. Robert Hendricks and L. P. Hendricks and their associates, reported recently as to establish a knitting mill, have awarded contract for the erection of a two-story 40x60-foot building to cost \$2500, in which will be installed twenty knitting machines, complete dyeing plant, 40-horse-power steam-power plant, etc., for a daily production of about 150 dozen pairs of misses' and children's hose. The plant will cost \$14,500 complete, and will be operated as the Limestone Hosiery Co.

\$50,000 Knitting Plant.

A knitting plant to be capitalized at \$50,000 will be established at Baltimore, Md. No site has been as yet selected, but the machinery required for knitting has been ordered. The mill will have a daily capacity of 400 dozen suits of ladies' knit underwear, and nearly 200 hands will be employed. Messrs. Thomas Dodd of Berkley, Va.; M. F. Chambers of Hamilton, Ohio, and W. T. Young of New York (now stopping at the Eutaw House, Baltimore) will comprise the company.

Textile Notes.

Rumors refer to the proposed erection of a cotton factory at Chestoe, Tenn.

It is reported that a woolen mill will be erected at Ludlow, Va., and that equipment for it has been bought.

Messrs. Collette & Ingles will establish a knitting mill. They are now erecting building in which the machinery will be installed.

Tombigbee Cotton Mills, Columbus, Miss., will install equipment for fire protection, and now invites estimates on such installations.

The Dallas Manufacturing Co., Huntsville, Ala., has issued checks to its stockholders for 3½ per cent. dividend on annual earnings.

G. L. Sherrill of Athens, Ga., who was recently contemplating the establishment of a knitting mill, has decided not to engage in the knitting business just at present.

The Crawford Woolen Mills of Martinsburg, W. Va., will erect a large addition and install more machinery, the extension to give employment to eighty more operatives.

The Canton (Ga.) Cotton Mills has filed orders for sheetings and drills for shipment to China, and will cease produc-

ing four-yard sheeting in order to fulfill the contract.

The Yazoo City (Miss.) Cotton Mills let contract this week for the steam-power plant, 250 horse-power, for its mill now building. Contract for the 5000 spindles and other textile machinery was awarded recently.

The Jacksonville (Fla.) Knitting Mills Co. has definitely determined to rebuild its burned plant that was valued at about \$30,000. Plant will include mill buildings, machinery and cottages; will employ 150 operatives.

Messrs. Joseph A. Yates, Louis Minor and J. H. Fowle of Birmingham, Ala., will organize company to build a knitting mill of capacity for 400 dozen pairs of hose daily. A 40x150-foot building will probably be erected.

The new mill at Roanoke, Va., started operations this week. The Roanoke Cotton Mills has been equipped at a cost of \$80,000, and the building cost about \$56,000. About 100 people will be employed. R. R. Fairfax is president.

The Buffalo Cotton Mills, recently mentioned as proceeding with construction of its \$600,000 plant at Union, S. C., will erect an office building and large store. Frank P. Milburn of Columbia, S. C., has prepared the plans; structure will cost \$18,000.

The Hogansville (Ga.) Manufacturing Co. will about double the capacity of its mill next fall. Additional building will be erected and new machinery installed. This plant is one of those recently bought by the United States Cotton Duck Corporation of Baltimore, Md.

No. 2 mill of the Highland Park Manufacturing Co., Charlotte, N. C., is located at Rock Hill, S. C. The Rock Hill plant now has its full complement of 786 looms in operation, an increase of 186. Eighteen cottages for operatives have been built by the company recently.

Report states that the Millfort Manufacturing Co. and its mill at Fort Mill, S. C., have been sold to Messrs. Eli B. Springs of Charlotte, N. C., and Leroy Springs of Lancaster, S. C. These two parties are interested in other Southern mills, and control the other mill at Fort Mill.

The Cameron (N. C.) Cotton Mill Co., reported last week, has purchased nearly all the necessary machinery for its plant. Boiler, engine, some shafting, belting and railway heads will be wanted, and dealers may correspond with likelihood of making sales. John W. Scott of Sanford, N. C., is president.

Contract was awarded this week to Wm. Moser at \$18,350 for the erection of the textile building for North Carolina College of Agriculture and Mechanic Arts at Raleigh, N. C. The structure is to be completed by October 1. About \$25,000 worth of textile machinery has already been donated for this textile educational department.

Unity Cotton Mills of La Grange, Ga., is nearing completion, with its 3200 spindles for manufacturing duck and other heavy goods. The company has contracted for erection of forty-four five-room cottages for its operatives. Each cottage will be located on a 100x200-foot lot, providing ample room for vegetable garden and lawns. A number of acres will also be fenced in for common pasture purposes.

It is announced through the Treasury Department that the Shell Transport & Trading Co. of England, which controls a fleet of twenty-two vessels, has contracted with producers of oil in Texas to market the oil outside of America.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

PRODUCTS OF PINE.**Opportunities for Their Profitable Utilization.**

Among the many important openings for Southern manufacturing, none show wider possibilities than the utilization of the abandoned pine forests. After the many years of turpentine gathering came the lumbermen, and after them an opening is left for the manufacturer of pine products.

The lumbermen cut their timber some feet from the ground, and the resultant stump in the course of a few years becomes what is known as light wood, being filled with the natural juices of the pine. These stumps have been used for years past in the manufacture of pine tar. But in the crude method of burning so long in vogue many of the best and most valuable products were lost. In the improved process, such as is being used in one or two plants, these vapors can be collected and distilled. By burning the wood in a sealed retort of a certain shape and construction waste is prevented and the vapors divide into a number of very valuable compounds.

The wonderful results of the distillation of one cord of light wood can hardly be credited, but it is a fact, nevertheless, as the writer has demonstrated that one cord of fat light wood will produce no less than 100 gallons of liquid and still leave a residue of charcoal equal in bulk to the original cord of wood. The products of distillation are as follows: A light oil of about 86 degrees, a heavy oil about 95 degrees, wood acid, or, to be more accurate, pyrolygineous acid, pitch, and a very fine grade of charcoal. The light oil, by a simple chemical change, can be divided into creosote, of which it contains about 20 per cent., and a light volatile liquid, chiefly dispertine, which is a perfect substitute for turpentine in the arts. The heavy oil, which also contains a large proportion of creosote, is generally used as a wood preservative, and has wonderful penetrative powers. It can also be used as paint oil by the addition of a drier, and makes a most durable paint for outside purposes.

The acid is the least valuable of the products, so far as we know, but even that has a commercial value, and is used in the manufacture of acetate of lime, and also for making iron liquor for dyeing purposes.

Pitch is used in a great many ways, most of which are familiar to the readers. The charcoal is of the finest grade, and the writer has sold it as high as twenty-five cents per bushel. The profits and results of the business are almost incredible, as a comparative estimate will show. The cost of one cord of light wood is about \$3 on an average; the cost of manipulation and interest on the investment at 6 per cent. is about \$2, making a total of \$5 per cord. Putting the price of the products at ten cents per gallon, which is a low estimate, 100 gallons will bring \$10. This does not include charcoal. This is a very conservative estimate, and is based on the actual experience of the writer, who has operated plants for some time. The cost of installing a plant with a capacity of ten cords per diem would be about \$10,000, and a working capital of a similar amount would be advisable.

There are today millions of cords of light wood in the South, and the opening is without an equal. We venture to say that if the capitalists of the North knew

of the feasibility and profits from such an enterprise the Southern pine belt would be dotted with plants. The writer has given the business years of study and practical experience. The possibilities are not confined to America alone, as a large export trade could be gradually worked up, and it is our belief that in a few years this will be one of the leading Southern enterprises.

THOS. W. PRITCHARD.
Wrightsville, N. C.

LUMBER MARKET REVIEWS.**Baltimore.**

Office Manufacturers' Record,
Baltimore, Md., July 2.

Although an exceedingly hot wave is passing over Baltimore, the local lumber market continues to show steady improvement, while the volume of business is somewhat restricted by climatic conditions. Receipts of lumber continue to more than supply the demand, and the tone of values is nominally steady for inferior grades, while for choice and selected lumber values are firmer. North Carolina air-dried lumber in box grades is improved, with sales larger. Kiln-dried lumber of desirable dimensions continues to improve in value, with a better domestic and foreign inquiry. White pine is selling freely, with the list of values very steady and stocks ample for all requirements. Cypress is doing better, with prices steady for good grades, while inferior stock is easy. Poplar is decidedly firm, and moving more freely. In all hardwoods the market is showing up favorably. Stocks have been somewhat reduced by late freshets, and mills have been restricted in their operations by loss of timber caused by the extraordinary high water in the upper streams and rivers in West Virginia and Tennessee. Buyers at nearby towns are not purchasing freely, but in certain lines of the hardwood trade considerable business has been developed during the week. Advances from the United Kingdom and continental ports are still unfavorable, and Baltimore shippers are not increasing their business to any unusual extent.

Norfolk.

[From our own Correspondent.]
Norfolk, Va., July 1.

The month of June has closed upon a materially improved lumber market, and in a local way the situation at the moment is encouraging to a much greater degree than at the same period a month ago. The demand in all avenues of the North Carolina pine trade is better, and prices, in consequence, are of a more healthy character, while stocks at mills continue to show but slight accumulation. It is safe to say that mills are fully provided with orders for sixty days to come, while shipments, both by rail and water, continue liberal. Box lumber continues in good demand, with a corresponding improvement in prices, edge box moving freely at advanced figures. Export grades, such as No. 1 lumber, commands better figures, and sales to foreign houses are of better volume. In the local building line there is a large quantity of lumber going into consumption, and the demand from outlying points adjacent to city is good. There is very little change in freights on lumber; the offering of tonnage is liberal, and charters are closed at slightly better rates than during May.

Mobile.

[From our own Correspondent.]
Mobile, Ala., July 1.

The week under review has been one of activity in the lumber trade of this port, nearly 5,000,000 feet going forward, while in sawn timber 163,697 cubic feet were shipped, and of hewn timber 3587

cubic feet went out, making the total shipments over 7,000,000 superficial feet. The lumber trade is looking up; South American ports are again in the market, with numerous inquiries from Cuba. There is also a good demand from the United Kingdom and Continent for desirable grades of lumber suitable for those markets. The advices from milling sections in this and adjoining States are very satisfactory; stocks are ample for the demand, and mills generally have a good business in sight. The timber trade, on the other hand, is quiet, with stocks light and the market very steady. Hewn timber is quoted 13 to 13½ cents per cubic foot, and sawn timber 12½ to 13 cents per cubic foot. Hewn oak is in limited demand at 15 to 18 cents per cubic foot, and poplar at 12 to 12½ cents per cubic foot. There is a good demand for saw logs at \$6 to \$9 per 1000 feet. Cypress logs are selling at 8 to 14 cents per cubic foot, and oak logs \$8 per 1000 superficial feet. Rough heart lumber is selling at \$13.50 to \$16; merchantable, \$10 to \$11; flooring, \$8 to \$14; ceiling, common, \$7 to \$11, and heart, \$18 to \$20. Freights are nominally steady, with no change reported.

New Orleans.

[From our own Correspondent.]

New Orleans, La., July 1.

The month of June was characterized by a very substantial volume of trade in nearly all avenues of the lumber industry in this section. Manufacturers and dealers in the lumber trade are generally well satisfied with the present outlook, and while no great demand for lumber is expected, there is sufficient business doing to give the proper tone to the market. The situation in yellow pine, both here and at all Gulf coast ports, remains about the same, and at all milling sections along the various lines of railroad entering this city orders have been very liberal during the past month. The demand for bill stuff is quite pronounced; timbers for construction work, railroad material, elevator bills, oil derricks and for other purposes are in great demand, so much so that mills have great difficulty in executing orders promptly. The mills at Westlake and Lake Charles, La., have all they can do to supply the demand, and shipments of lumber from Calcasieu parish last month were heavier than usual. Prices for yellow pine have ruled very steady, especially for the better grades, while the inferior stock does not sell so readily. The demand for cypress continues to show increased activity as the season progresses, and while the fine qualities of this wood are now fully understood, there is a constant demand, with rates firm. At the last meeting of the board of directors of the Southern Cypress Lumber Selling Co., Limited, all the mills-owners reported their plants running full time, with stocks light. All orders received are executed promptly, and it is expected that stocks will be heavier before the autumn trade sets in. It is a notable fact that orders coming to hand are generally of considerable magnitude, and in yellow pine we note one given by the Illinois Central for its new elevator for 4,000,000 feet, besides 4000 pilings, none of which are less than forty feet long. Some very handsome orders for city improvements and for building purposes throughout the State are now being executed by mills at nearby points. The saw-mills in the Pascagoula district and at Pearlington, Miss., have all the business they want, and have generally a good supply of logs. The export trade is quiet, and, owing to the unsettled state of affairs in the European market, the shipments of hardwoods from this port have been light, and only special orders

are going forward. The improvement in real estate in this city and at suburban points is remarkable, and there has recently been some large purchases of property for the erection of new office buildings. In addition to these purchases, large numbers of fine residences are being planned or erected. The board of directors of the Mechanics, Dealers and Lumbermen's Exchange held their last meeting in their new exchange rooms, which are admirably adapted for their purposes. The secretary of the exchange reports the receipts of wood products for the week ending the 28th ult. as follows: Lumber 2,005,000 feet, shingles 395,000 feet, oak staves 266,670 pieces and cypress staves 62,000 pieces.

Memphis.

[From our own Correspondent.]

Memphis, Tenn., July 1.

The month of June has been a splendid one from the hardwood lumbermen's standpoint in this city and in the whole of the Memphis district. There are complaints in some directions that there has not been the same amount of snap to the business as was the case last year, though it is generally agreed that fully as many transactions were recorded as during June, 1900. Prices all the way through ruled lower than at that time, thereby leaving a smaller margin of profit, but there has been practically no disposition to make concessions from open quotations, and a hardening tendency has been apparent all the while. The demand has been better in most directions than during the previous month, and altogether the situation at the moment is bright and the outlook for a good business promising. The greatest improvement has come from the domestic trade, though the export trade, too, has shown some signs of betterment, especially in red gum for paving purposes and in the plain oaks and quartered white, all of which have gone forward with some freedom. There is still room for considerable improvement, however, in the export division, and this is confidently looked forward to, as it is generally conceded that stocks in the hands of the foreign trade patronizing this market are small. In the domestic business gum has forged to the front to some extent for use in the manufacture of furniture and coffins, the coffin factories at this point and all over the country taking the wide sap gum pretty readily. As already noted, too, the effort to substitute the gum barrel and box for that formerly made of more expensive woods has resulted in an increased demand for this wood, and it may safely be stated that there is more business in gum at the moment than there has been at any time during the year, despite the fact that all the mills in the immediate vicinity of Memphis have been engaged to their full capacity throughout the month. On the other hand, there has been considerable decrease in some of the leading sellers, notably plain red oak, ash and poplar, all of which are offering now in rather small quantities—so small, in fact, that it is rather difficult to fill all orders immediately in the desired thicknesses and lengths. This is especially the case with poplar. It is a noteworthy fact that there is less of this wood being handled on this market than at any time for quite a long while, as this is not any longer an important poplar section, especially when taken in comparison with the eastern and middle portions of this State. The log situation is very satisfactory, and promises to continue so for some time to come. A canvass of the mills here shows that good progress has been made during the month in getting out logs from the bottoms, particularly on the part of the rail mills, and no scarcity in this direction is

anticipated. Some of the mills in the interior have had some trouble with scarcity of labor, though those in the immediate vicinity of this city have had no trouble whatever in this direction, despite the larger demands made upon labor by the farming classes. The various woodworking plants have had a good month. The slack stockmen complain of some dullness, while, on the other hand, the tight cooperage manufacturers, as well as the makers of boxes and box shooks, have found conditions to come fully up to their expectations in every respect. The mills cutting the building woods have all they could do. The building permits for the month were large enough to swell the total increase of the first six months over the corresponding period last year to about \$1,000,000, which of itself would indicate an exceptional run of business. Conservative estimates place the increase in the volume of business among these mills at 20 to 25 per cent. in comparison with any June in the history of the city.

Beaumont.

[From our own Correspondent.]

Beaumont, Texas, June 29.

The Texas manufacturers certainly have no cause of complaint on any score with regard to the lumber business. Never before in years has there been so great a demand for material and such good prices obtainable, particularly so with reference to what is termed by them the timber business. This means orders for timber that are to be sawed out at the mill to size and shipped direct from the saw. The railroads of the State are consuming enough lumber to keep all the mills busy if there were no demands from other sources. Heart ties jumped up a dollar a thousand within the last two weeks, and now are bringing \$12 at the mill. Sap ties are selling readily at \$8 to \$8.50, which is \$2 per M feet more than they have been bringing in the past. Twelve-inch heart timber, usual lengths, is a free seller at \$11. In view of crop prospects trade is rather quiet from the North Texas towns, as dealers do not feel disposed until they are assured of a trade. From other sections of the State, however, there has been a very good business, and orders have been plentiful. All now hinges on what the crops will do. If a good cotton crop is made, excellent business in the lumber industry is assured for the remainder of the season. So far stocks have been held well in hand by the manufacturers. June 1 report showing only 141,000,000 in the hands of the mills in the long-leaf district. The demand is coming principally at this time from the city trade over the State, where the surplus money from last year's crop is largely being invested in buildings of all descriptions. Then there are twenty-five new oil mills going up, which have absorbed a great deal of material. The export business is absolutely dead, so far as this district is concerned. Interviews with prominent exporters all show the same result—plenty of inquiries, but inability to do business at the prices offered. In answer to the question as to whether there would be any improvement in the export business soon, they were a unit in answering that they expected better prices during the latter part of the year, but there was no certainty of it. The cause for this great dullness, which is worse in yellow pine than in any other wood, was stated to be due to a variety of causes, such as the Chinese trouble, the Boer war, etc., also the bad crops of Europe. Messrs. C. R. Cummings & Co., the hardwood exporters of Houston, Texas, have begun to build their new mill at Sabine, at which point they expect to saw up oak and ash logs solely for the export market.

Lumber Notes.

Shipments of lumber from Fernandina, Fla., for the fiscal year ending June 30, 1901, amounted to 108,542,230 feet.

The steamship Comanche of the Clyde Line cleared from Jacksonville, Fla., last week for New York with 300,000 feet of lumber.

The Deerfield Farm & Lumber Co. of St. Louis, Mo., has been chartered, with a capital of \$50,000, by M. C. A. T. and S. H. Wright.

The saw-mill plant of Ivy & Pritchard, ten miles south of Tipton, Ga., was destroyed by fire last week. The shingle mill was also consumed.

Some very handsome receipts of hickory and poplar lumber are now being delivered at Elora, Tenn., for shipments to Northern and Eastern centers.

Receipts of lumber at New Orleans for the week ending the 28th ult. amounted to 2,005,000 feet, and for the season 124,905,135 feet, against 90,673,869 feet last year.

The schooner Nellie W. Howlett cleared last week from Savannah, Ga., for Wilmington, Del., with 247,443 feet yellow pine, shipment being made by the Georgia Lumber Co.

The St. Lawrence Boom & Manufacturing Co., one of the largest lumber plants in West Virginia, is turning out 125,000 feet of lumber daily, and is months behind in orders.

The Edenfield Lumber Co. of Tampa, Fla., has purchased during the last few days over 1,000,000 feet of lumber in lots, besides making contracts with several mills for their entire outputs.

The stave mill and dry-kiln, together with about 250,000 finished staves, of T. Harlan & Co. at Trenton, Tenn., were totally destroyed by fire on the 24th ult.; loss about \$25,000, with insurance \$10,000.

The La Follette property at La Follette, Tenn., in its timber properties is one of the richest in the State. Over 700,000 feet of oak and poplar per month are being cut at the company's saw-mills.

The Farmers & Merchants' Lumber Co. of Alvarado, Texas, has been incorporated, with a capital stock of \$10,000. The incorporators are L. B. Trulove, B. M. Sansom, W. A. Houchin and others.

The total shipments of lumber from the port of Apalachicola, Fla., for the fiscal year ending June 30, 1901, amounted to 108,542,230 feet, of which 85,175,947 feet were domestic and 23,336,283 feet foreign.

The saw-mill operated by the Union Lumber Co. of Alexandria, La., and owned by D. F. & C. H. Clark of that city, was destroyed by fire on the 24th ult. The mill was valued at \$12,000, and insured for \$5000.

Arrivals of vessels to load lumber and timber at Pensacola continue, and lumber cargoes are going out freely. The supply of timber at Ferry Pass continues to show about 36,000 pieces, having been slightly reduced during the week.

The cypress and yellow-pine mills at Georgetown, S. C., and adjacent points report good demand for lumber. The Gardner & Lacy Lumber Co. of Georgetown is cutting daily about 60,000 feet of lumber, and it is immediately shipped after being seasoned.

The Blades Lumber Co., having large milling interests throughout Eastern North Carolina, with headquarters at Elizabeth City and New Bern, has purchased the Congdon Mill property, which embraces a fine saw-mill, planing mill and dry-kiln in New Bern and 10,000 acres of pine land in Jones and Pamlico counties.

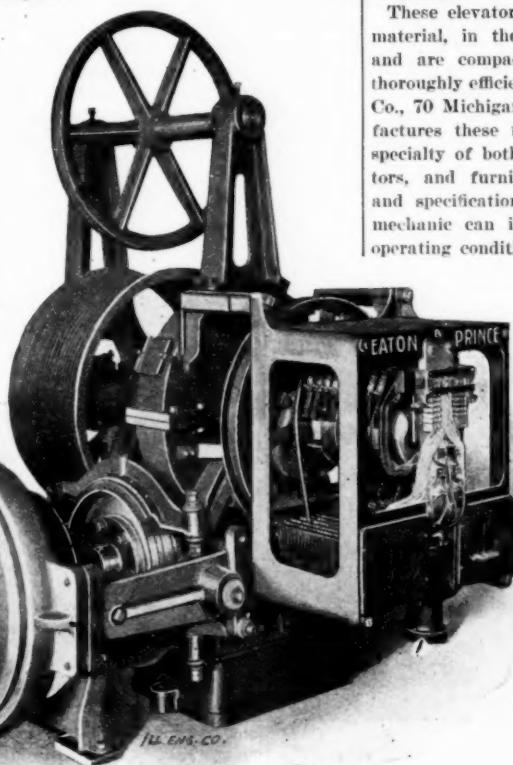
MECHANICAL.

Eaton & Prince Elevator Motor.

Users of elevators will be interested in the accompanying illustration of the Eaton & Prince motor for combined passenger and freight elevators. The machines embody some valuable features of entirely new design, and are built for either floor or ceiling attachment.

They are of the direct-connected type, having the motor and controller attached direct to the winding machine in such a manner as to secure the greatest facility for adjustment and repair, and so that either motor or controller can be taken off and replaced without a possibility of getting out of line or of disturbing the

worm shaft of the elevator mechanism to which the armature shaft is insulatingly coupled.



EATON & PRINCE ELEVATOR MOTOR.

insulation of either. The motor has no feet or pedestals, but is supported by an insulated split ring, into which it is inserted and held by a clamping screw, the

reversing mechanism is so constructed as to avoid sparking and secure a powerful dynamic retarding effect in stopping the car, thus, with the very effi-

cient mechanical brake, securing a remarkably easy or soft stop.

All contacts in the controller are made in duplicate, and so constructed that wornout pieces can be replaced with new ones without disturbing their connecting wires. These improvements are covered by patents.

These elevators are built of the finest material, in the best possible manner, and are compact, simple, durable and thoroughly efficient. The Eaton & Prince Co., 70 Michigan street, Chicago, manufactures these machines; also makes a specialty of both hand and power elevators, and furnishes complete drawings and specifications, so that an ordinary mechanic can install them and put in operating condition.

Applications of Telpherage.

Telpherage is the automatic transportation of light or divisible material to a distance by electricity. It may be overhead, upon the surface or underground. There are many factories where the in-

stallation of the overhead telpherage system would prove a valuable investment, and because of this the accompanying illustrations are presented for the consideration of those who may be interested. Factories of today frequently cover a large area, and the transportation

of materials and partly or entirely finished product from one portion of the plant to another, either outside or inside of buildings, is a problem. The problem of effecting this transportation in the most efficient and economical manner is claimed by telpherage adherents to be solved by that system.

Automatic conveyance of packages and parcels by means of electricity is one of the oldest applications of the electric motor, yet its development has not been rapid. There is, therefore, a large field available in which telpherage may be employed usefully.

The telpher, or automatic truck, which runs along the upper side of the taut wire cable, consists of four small slow-speed, direct-current motors, two directly coupled upon each of the two shafts, upon which also are mounted grooved wheels which run upon the top of the cable. The load is suspended below in the method clearly shown by the illustrations. Fig. 1 shows a system operated by Yale & Towne Manufacturing Co. at Stamford, Conn., and Fig. 2 is a system in a St. Louis glass works. From the middle of the apparatus rises a short trolley, making contact by means of a roller, so as to allow considerable variation in the position of the trolley wire. The latter is suspended directly above the running cable. The operation of the system is entirely automatic. The current is turned on at one end when it is desired to start the telpher, which accelerates itself gradually up to its full speed—generally about twelve miles an hour—slowing down automatically for curves and automatically switching off the current so as to stop, at the desired place at the other end of the line.

As to the advisability of using single or double telphers, this greatly depends upon the class of work to be done.

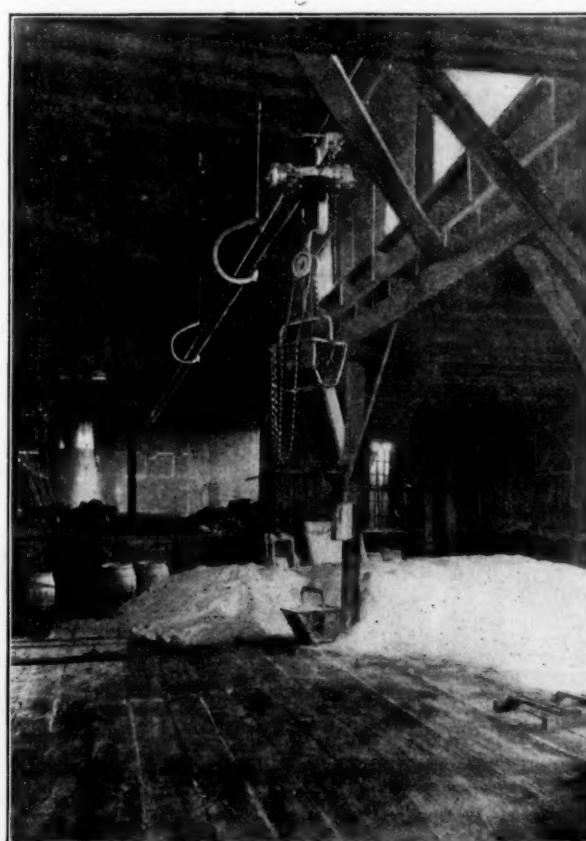


FIG. 2.

One of the chief characteristics of the aerial system shown is the unit system. After many trials and experimenting with various methods, this was selected as the most flexible, and one which most successfully fulfills the greatest number of conditions.

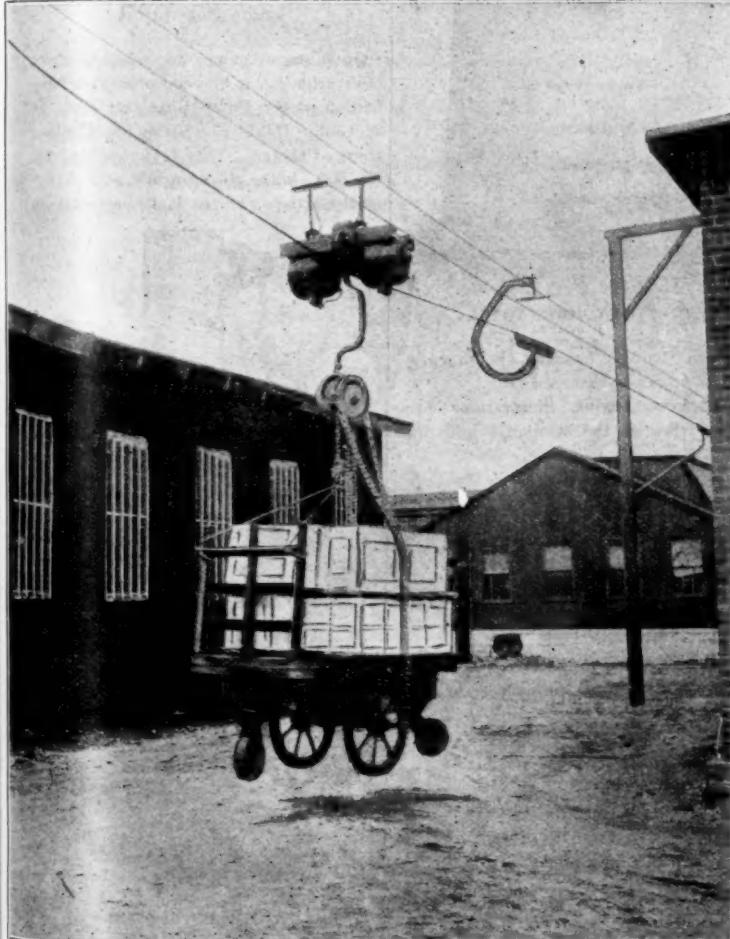


FIG. 1.

outside of the motor being turned concentric with the armature shaft, and the inside of the ring being bored concentric with the armature shaft of motor and of the line of the bearings of the

motor.

stallation of the overhead telpherage system would prove a valuable investment, and because of this the accompanying illustrations are presented for the consideration of those who may be interested. Factories of today frequently cover a large area, and the transportation

The United Telpherage Co., 20 Broad street, New York, furnishes and installs the systems here shown, and will design equipment for any class of plant. Write for further details.

The Cypress Lumber Co.

The exceptional advantages possessed by cypress lumber in manufactured form

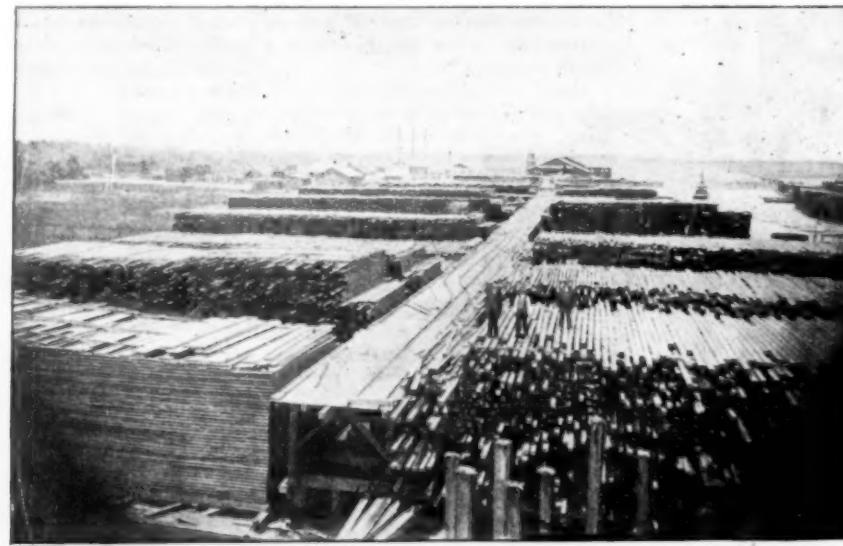
are essential in order that the best results be obtained. Such are the facilities that the Cypress Lumber Co. combines in its extensive plant and yards at Apalachicola, Fla. This company's product has become well and favorably known from Maine to Texas, and the demand constantly increases because of the high standard which is maintained in manu-

with the size, trade-mark and name of the company, so that it is easy to be certain in securing the high-class product in reference. The company's tank business has also increased to such an extent as to require better facilities, and recently a large addition has been made to that branch of the business. The cypress used is thoroughly air-dried and then

the services of two modern band-saw mills, and a stock of from 10,000,000 to 15,000,000 feet of lumber is carried on the sticks at all times. Cypress is not the only wood handled, as ash, gum, cottonwood, juniper and many other woods are also sown. About 400 is the number of operatives engaged at the works.

New Interlocking Lap.

Dealers in and users of prepared roofing will doubtless be much interested in the accompanying illustration of a new patented interlocking lap. It will be seen that the nail-heads are entirely protected with this lap. Much of the trouble that has occurred with ready roofing is said to have been at the laps or where the pieces



CYPRESS LUMBER COMPANY'S MILL YARD AT APALACHICOLA, FLA.

as tanks, doors, sash, blinds, vats and general mill work have brought that lumber into very extensive use. The durability of cypress, its qualities of not coloring or otherwise impregnating liquids of various kinds, and its natural beauty have

factoring the doors, sash, blinds, vats and general mill work offered to dealers and

kiln-dried until "bone-dry" before it is made into a marketable article. These processes require a long time, and the immense stocks carried at the plant en-



DOORS, SASH, BLINDS and MILL WORK.

combined to create a large demand for finished product in that wood.

Manufacturers of cypress lumber products must possess, in order to turn out work that is entirely satisfactory to the exacting buyer, the most complete of



PYRAMID OF SHINGLES.

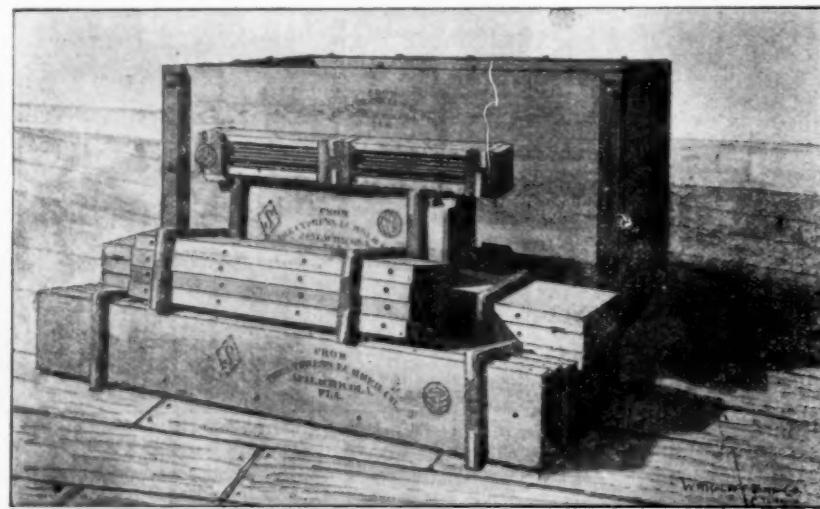
users. The doors are in especially large demand, and somewhat less than two



ROUND CYPRESS TANK.

able the Cypress Lumber Co. to carry out the proper treatments.

The accompanying illustrations present a view of the company's mill and



COTTON-MILL DYE VATS.

modern plants, approved machinery of the latest designs, and the facilities for giving cypress the drying processes that

years ago this necessitated a doubling of the door, sash and blind branch of the factory. All of the product is branded

yards, and of various lumber products offered.

The industry at Apalachicola requires

the services of two modern band-saw mills, and a stock of from 10,000,000 to 15,000,000 feet of lumber is carried on the sticks at all times. Cypress is not the only wood handled, as ash, gum, cottonwood, juniper and many other woods are also sown. About 400 is the number of operatives engaged at the works.

New Interlocking Lap.

Dealers in and users of prepared roofing will doubtless be much interested in the accompanying illustration of a new patented interlocking lap. It will be seen that the nail-heads are entirely protected with this lap. Much of the trouble that has occurred with ready roofing is said to have been at the laps or where the pieces

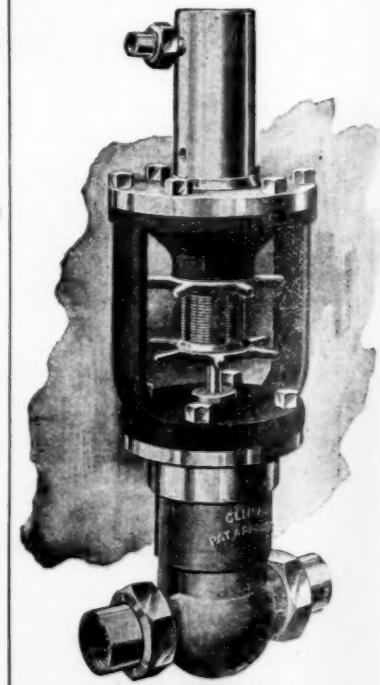


OVR LAP.
NEW INTERLOCKING LAP.

of roofing are joined together. By the new method leaks at the laps or joints are positively prevented. This new device is controlled by the Trinidad Asphalt Manufacturing Co. of 320 South Twenty-first street, St. Louis, Mo., and is used only on its Improved R. R. S. Asphalt Roofing, Asphalt Roofing, Rubber Feltine and Asbestine Fireproof Roofing.

Pump Regulator.

Operators of pumps are asked to direct their attention to the accompanying illustration of the Pump Regulator made by the John Davis Company, 51 Michigan street, Chicago. This device is intended for fire, tank, elevator, air and waterworks pumps, where it is necessary to



PUMP REGULATOR.

maintain a constant pressure. The regulator is adjusted by spring, which is not exposed and does not have an unsightly appearance. This obviates the liability of being handled and changed. The regulator shown is made of the best material, and constructed on scientific principles.

Exhibit of Atlas Pipe Wrench Co.

Among the interesting exhibits at the Pan-American Exposition is that of the Atlas Pipe Wrench Co., 121 Liberty

Atlas Pipe Wrench will be demonstrated to those visitors interested in pipe fitting and the advances made in tools for that purpose. Quality of the steel used in manufacturing this wrench and the finish

ture from the "bar steel" to the "finished product." An accompanying illustration gives an idea of the exhibit.

New No. 14 Nine-Inch Molder.

The illustration presents drawing of a new machine designed as No. 14 Nine-Inch Standard Molder, manufactured by

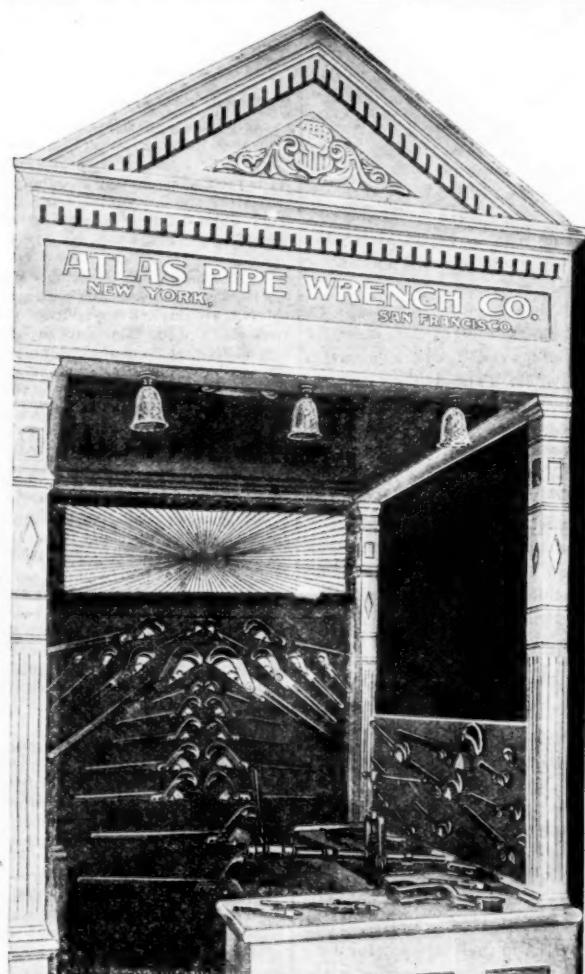
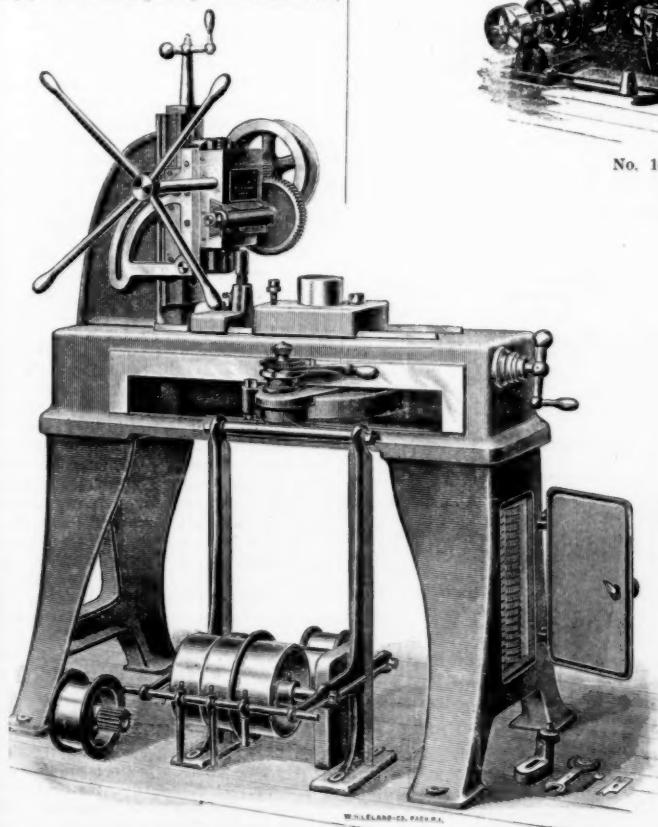


EXHIBIT OF ATLAS PIPE WRENCH CO. AT PAN-AMERICAN EXPOSITION.

street, New York. Atlas wrenches of all sizes will be on exhibition, and a practical demonstration will be given by an expert workman. All the uses to which the pipe wrench is put by the steamfitter,



IMPROVED HAND-FEED GEAR-CUTTING MACHINE.

plumber, engineer and other users will be shown. The superiority claimed for the wrenches in various stages of manufac-

ture from the "bar steel" to the "finished product." An accompanying illustration gives an idea of the exhibit.

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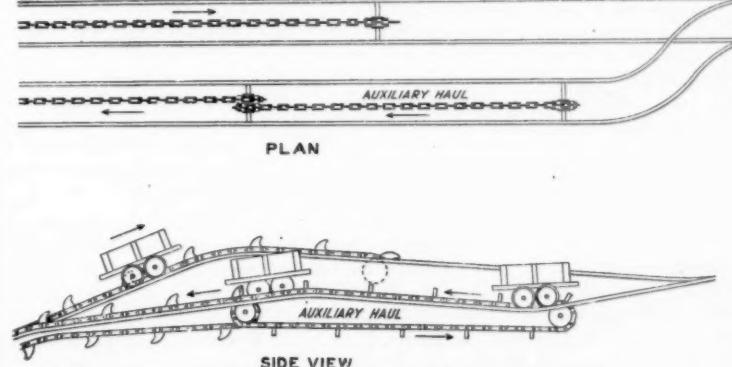


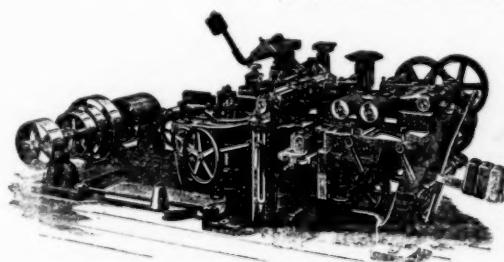
FIG. 1—SIDE VIEW AND PLAN OF THE CAR-HAUL.

J. A. Fay & Egan Co. of Nos. 270 to 290 W. Front street, Cincinnati, Ohio.

To design a molder of superior advantages, and one that will do more and better work than the old style, has been the aim of this company for some time past, and it now presents this new-style machine, and thinks the following points will recommend it to anyone wanting a strictly first-class molder.

A few of its special advantages are: Lower head cuts first; table at feeding-in end adjustable independently; upper feed rolls driven downward; all pressure bars can be instantly thrown back, giving free access to heads; outside bearing to main head; lower head and its bearings draw out endwise for setting or sharpening the knives; countershaft at feeding-out end of machine, and there is no rubbing or cutting of belts.

The manufacturer will furnish prices.



No. 14 NINE-INCH MOLDER.

Hand-Feed Gear-Cutter.

Machines for gear-cutting are among the most handy devices that can be installed in repair shops, especially in the shops of cotton mills, because of their convenient adjustment for all varieties of work. Many Northern and Southern cotton factories are using the Improved Hand-Feed Gear-Cutting Machine shown by the accompanying illustration. This machine is supplied with useful attachments, which largely increase its scope. One of them, the vise, is shown. This vise may be used to hold shafts of various sizes for keyseating. It has a graduated base, and may be swiveled to any angle, so that a great variety of plain milling work can also be done to advantage. It may be readily applied to any machine now in use without alteration. The D. E. Whiton Machine Co. of New London, Conn., manufactures the machine in reference.

Link-Belt Car-Haul.

Many labor-saving applications utilize the familiarly-known link-belt. In coal mines, for instance, one of the problems is to run the coal up and out and load it into railway cars with all possible dis-

patch and economy. The Link-Belt Car-Haul takes loaded cars automatically from the mine to the tipple and returns the empty cars, all without attending labor. See the accompanying illustrations.

The cars are automatically engaged at the foot of the up-haul and automatically

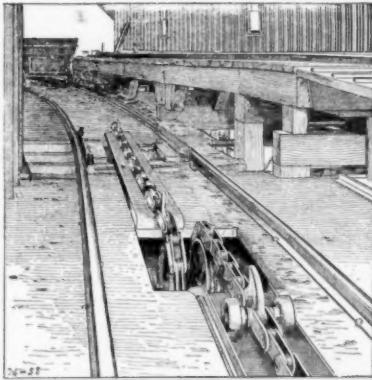


FIG. 2—PERSPECTIVE SHOWING POINT WHERE "AUXILIARY HAUL" MEETS "DOWN HAUL"—BOTH IN REALITY ARE RETARDERS, PREVENTING CARS FROM RUSHING DOWN INCLINE.

chain is equipped with tilting blocks, which tip forward to absorb the impact of the on-coming car, but which are rigid in the other direction. The arrangement is such as to insure the empty cars being

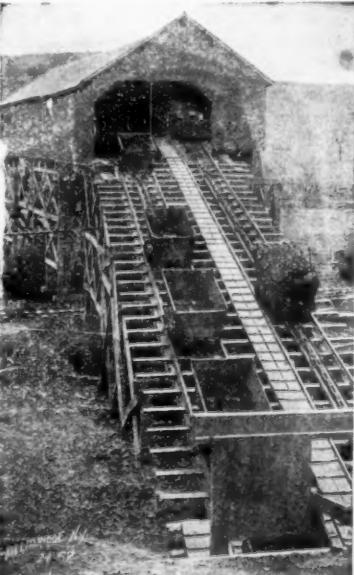


FIG. 2—LOADED CARS ON WAY TO TIPPLE—EMPTY CARS RETURNING TO MINE.

safely engaged by the hook on the down-haul without manual labor.

This equipment is designed and manufactured by the Link-Belt Engineering Co. of Philadelphia, Pa.

During the fiscal year 97,574 tons of pig-iron were exported through New Orleans.

COTTONSEED OIL.

This department is open to the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

Cottonseed at Marseilles.

Marseilles is without doubt the greatest manufacturing and consuming point for vegetable oils in the world, writes United States Consul Robert P. Skinner. Every important oleaginous seed known to commerce is required by the crushing trade, and the equally important soap trade absorbs a large part of the product, and in recent years has purchased from 112,000 to 287,000 barrels of American cottonseed oil as well. The imports in 1900 of all oil seeds, other than copra and palm kernels, were about 10,000 tons in excess of the previous year, while the imports of copra and palm kernels alone showed an increase of 12,000 tons over the previous year. Local mills crushed practically all of the 350,000 tons imported, which, in addition to the 44,900 tons of oil imported, gave in round numbers about 180,000 tons of oil for soap-making and edible purposes. Of this total production, the local soap industry consumed about \$5,000 tons.

The soap trade requires about 50 per cent. of cocoanut oil and 50 per cent. of peanut or American cottonseed oil. Two-thirds of the copra from which the coco oil is produced is received here from Manila, and both the sun-dried and kiln-dried qualities are handled, preferably the latter. There is a growing disposition on the part of shippers in the East, other than those in the Philippine Islands, to send kiln-dried copra, and the greater care they take in the collection of the merchandise makes it profitable to them. An increasing quantity of copra is required in this market, and other markets are being developed in the commercial centers of Europe. Buyers are somewhat at a loss to know what turn prices will take during the next twelve months, because of conflicting statements with regard to the Philippine Islands. During the insurrection shipments from Manila were very much curtailed, and at one time almost ceased. Immediately after the opening of the blockaded ports the copra collected during the preceding years was forwarded to the European market, and, in the absence of any official crop reports, European buyers are unable to determine to their own satisfaction whether there is still a large quantity of unsold copra in the interior of the country, which will gradually seek a market, or whether the accumulated stock has been entirely disposed of.

The failure of the peanut crops in India and to a lesser extent elsewhere, some years ago, gave the first impetus to the cottonseed-oil trade in this port, but recently the Indian farmers, who had followed the practice of replanting their land with seed from the previous year's crop, have adopted more scientific methods, and the result is shown in the increased arrivals of their product. They are now cultivating their land carefully and using the best quality of African nuts for seed, and a recurrence of the former trouble is not anticipated. Last year 18,750 tons of Indian peanuts were received at Marseilles, the total being a very considerable increase over the year before, and it is expected that this year's arrivals from the same source will amount to 45,500 tons. These receipts, together with those from African sources, will naturally affect American cottonseed-oil sales in Marseilles to just that extent, as the latter is always marketable at a good price, and buyers in the soap trade

seek it only when they are unable to secure cheaper vegetable oils of domestic manufacture.

Cottonseed-Oil Notes.

The Centreville Cotton Oil Co., of Centreville, Miss., has increased its capital stock from \$25,000 to \$40,000.

The shipments of cottonseed oil for the fiscal year ending June 30, 1901, aggregated 12,837,898 gallons, valued at \$3,801,324, against 12,376,908 gallons in 1900, valued at \$3,347,063. Shipments of cottonseed cake and meal for the year aggregated 508,787,682 pounds, valued at \$5,309,436, against 489,532,109 pounds in 1900, valued at \$4,838,018.

Quotations of cottonseed products at Memphis on the 1st ranged as follows: Cottonseed oil, carload lots, per gallon, prime crude, 31 cents; off crude, 26 cents in carload lots, 30 cents in less than carload lots; choice cooking summer yellow, less than carload lots, per gallon, 42 cents; cottonseed meal and cake, carload lots, per ton, prime, \$19.50; less than carload lots, \$20.

The following are official quotations on cottonseed and cottonseed products as posted at the New Orleans Cotton Exchange on the 1st inst.: Prime refined oil in barrels, 38½ cents per gallon; off refined oil in barrels, 36 cents per gallon; prime crude oil, loose, 32 cents per gallon; prime cottonseed cake, \$23.50 per ton of 2240 pounds; off do., nominal; prime cottonseed meal, \$23 per ton of 2240 pounds; off do., nominal; soap stock, loose, 1 cent per pound; linters, per pound, choice, 3½ cents; A, 3½ cents; B, 3½ cents; C, 3 cents; cottonseed in sacks delivered in New Orleans, \$14 per ton of 2000 pounds; in bulk delivered in New Orleans, \$13 per ton of 2000 pounds.

The East Coast Lumber Co. has been chartered in Delaware, with a capital of \$1,000,000, to cut and market timber from a tract of 5000 acres in Florida about 150 miles from Jacksonville. Baltimore capital is largely represented in the enterprise. The officers of the company are George F. Jones, president; Miller R. Creighton, secretary; William W. Dix, treasurer, all of Baltimore. The directors are Frank H. Calloway, O. B. Zantzinger, J. S. Weaver, Robert Maurice Miller and R. N. Ryon of this city; R. E. Rose, president of the State Agricultural Society, and the State chemist of Florida; W. C. Homes of W. C. Homes & Son, Oak Hill, Fla., and W. C. Carman, superintendent of the Wilmington Conference Academy, Dover, Del. The headquarters of the company is to be in Baltimore.

The shipments of lumber and timber from the port of Pensacola, Fla., for the fiscal year ending June 30, 1901, aggregated 331,606,132 superficial feet, and for the previous year they amounted to 321,465,264 superficial feet, showing an increase in shipments of 10,140,868. This does not include shipments of hardwood timber and lumber.

The Atlantic Coast Lumber Co. of Georgetown, S. C., has completed an assorting shed 140x800 feet, where all lumber will be assorted and graded previous to shipment. The company has also recently put a planing mill in operation with a capacity of 40,000 to 50,000 feet of lumber per day.

The shipments of lumber last week from Mobile, Ala., aggregated nearly 5,000,000 feet, of sawn timber 163,697 cubic feet, and of hewn timber 3547 cubic feet. The total shipments of lumber for the season amounts to 94,864,087 feet, against 126,802,062 feet last year.

PHOSPHATES.

Phosphate Markets.

Office Manufacturers' Record,
Baltimore, Md., July 2.

The phosphate market has ruled very steady during the past week, with the volume of trade light. There is a fair offering of phosphate rock from the several sections of the Southern phosphate belt. During the month of June the development in all mining sections has been more vigorous. In Florida there is a fair business reported, with a good demand for both land rock and pebble. Shipments from the ports are only moderate. For the fiscal year ending June 30, 1901, Fernandina reports 130,926 tons. In South Carolina the tone of the market is quiet, with, however, a better domestic demand for rock. The various mining companies are now fully engaged, and are getting out considerable rock. There is a fair business reported at Mt. Pleasant, and throughout the Tennessee phosphate field there is a more decided demand for rock. The list of values is practically unchanged, and the market nominally steady at last week's figures. The shipments of Tennessee phosphate rock from the port of Pensacola for the fiscal year ending June 30, 1901, aggregated 178,745 tons, against 155,314 tons for the previous year. The British steamer James Turpie was chartered last week to load phosphate rock at Port Tampa for the United Kingdom or Continent on private terms.

Fertilizer Ingredients.

The market for ammoniates is quiet, and values nominally steady. There is some demand from Eastern buyers, and the offerings in the West are moderate, with stocks firmly held. Messrs. Thos. H. White & Co. in their circular for June say: "The market for ammoniates the past month has been quiet. There has been a steady advance in all materials, the heaviest being in blood, which shows an increase of 15 to 20 points. For June shipment foreign sulphate of ammonia was offered freely on basis of about \$2.20 per unit of ammonia, Baltimore; futures, however, are quoted on higher basis. The fish catch in Chesapeake bay the past month is reported good. With a bountiful wheat harvest in all sections of the country and the present level of prices expected for the growing crop of cotton we may reasonably calculate upon good support the balance of the year to the present position of the market."

The following table represents the prices current at this date:

Sulphate of ammonia (gas)...	\$2 72½@ 2 75
Nitrate of soda, spot Balto...	1 55 @ 1 90
	N. York. 1 55 @ 1 90
Blood	2 37½
Azotine (beef).....	2 35 @ 2 37½
Azotine (pork).....	2 35 @ 2 37½
Tankage (concentrated).....	2 15 @ 2 20
Tankage (9 and 20).....	2 30 & 10@ 2 35 & 10
Tankage (7 and 30).....	20 60 @ 21 00
Fish (dry).....	27 50 @ 30 00

Phosphate and Fertilizer Notes.

The board of directors of the Virginia-Carolina Chemical Co. has declared the regular quarterly dividend of 2 per cent. on the preferred stock of this company for the quarter ending June 30, 1901.

TRADE NOTES.

Grist and Saw-Mill.—A complete plant for saw and grist milling is offered for sale by S. E. Smith of Oakton, Va. The plant is located fifteen miles from Washington, D. C.

Hosiery-mill Sale.—In another column will be found reference to a hosiery mill offered for sale at a point on the Southern Railway. The plant is now in full operation, and satisfactory reasons are given for selling.

Rolling Stock for Sale.—The attention of railroad companies is called to the advertisement in another column of Walter A. Zellicker, 408 North Fourth street, St. Louis,

who offers for sale 250 coal cars, 500 flat cars and 500 box cars.

More Structural Buildings.—Steel-frame construction will be used for the new buildings of the Carnegie Tube Co. at Carnegie, Pa. Wm. B. Scaife & Sons of Pittsburg, Pa., designed the buildings, and have contract for their manufacture and erection.

Manufactory for Sale.—Investors desirous of becoming interested in a manufacturing plant transacting an established business are invited to correspond with receiver, Henry G. Newton, Box 123, New Haven, Conn. The business is the manufacture of tin boxes and other tinware, the plant being that of Merriam Manufacturing Co. at Durham, Conn. Public auction will be held July 15.

For Crushing and Grinding.—Manufacturers interested in crushing and grinding machinery are invited to address the Sturtevant Mill Co. for their new 80-page circular describing that class of machinery. The line for complete fine crushing and grinding is complete, and includes a large vertical mill newly designed and now being marketed. This latter machine has been sold in some numbers to phosphate operators.

Machinery for Sale.—A considerable quantity of second-hand machinery, but all in good operating condition, is offered for sale by the Hughes Specialty Well Drilling Co. of Charleston, S. C. The equipment includes a Blake duplex pump, pulling pump of one-and-one-half-inch suction and one-and-one-quarter-inch discharge, two Lambert hoisting engines of twelve horse-power each, six-horse-power Erie engine, two-inch steam connection Sinker-Davis high-speed governor and a two-inch tube expander (this brand new).

Broke All Records.—The New River steam coal has again played a part in the speed of American warships. It is officially announced that this grade of coal was utilized by the United States battleship Illinois during the recent official trial trip, when she maintained a speed of 17.45 knots an hour for four hours continuously. This exceeded the contract requirements by 1.45 knots. It is also notable that the Illinois returned to Newport News under natural draft, making an average speed of sixteen knots an hour. Coal was furnished by the Chesapeake & Ohio Coal Agency Co., No. 1 Broadway, New York.

Automobile Motors and Launches.—The successful automobile must operate over any ordinary roads with equal dispatch, and with the same success as now accomplished by the horse-driven vehicle. In a vehicle driven by power it is evident that the motor is the leading feature to be considered. Acting on the premises given, the Remington Automobile & Motor Co. of Utica, N. Y., has perfected its hydrocarbon motors and complete vehicles. The company has issued a new catalogue concerning its product, including complete vehicles, motors or launches. These vehicles and motors are claimed to possess such efficiency and general merit as will meet the expectations of the most exacting users. Send for illustrated booklet.

Stilwell Feed-Water Heaters.—These devices continue to be largely in demand throughout the entire country. Their superior values of merit and their general efficiency for the purposes for which they are offered recommends them to the discerning user. The Stilwell-Bierce & Smith-Vale Co. of Dayton, Ohio, manufactures the Stilwell heaters, and its trade in this product is now greater than ever before in its history. Recent sales included various sizes shipped to well-known concerns. Among the orders were the following: Electric company at Jenison, Mich., one size G improved heater and lime extractor; Hammer Paint Co., St. Louis, one No. 1 cast-iron heater; American Steel Hoop Co., Allegheny, Pa., one No. 6 cast-iron heater; Oklahoma Territory, one size B improved heater; Clarksville, Texas, one No. 5 feed-water heater; Florentine Pottery Co., Chillicothe, Ohio, one No. 6 feed-water heater; Western Tube Co., Kewanee, Ill., one No. 6 cast-iron heater; Pocahontas (Va.) Collieries Co., one size II improved heater; firm at Paris, Texas, one No. 7 feed-water heater; Leland (Miss.) Oil Works, one size E heater; Stephenville (Ga.) Oil Mill Works, one size E 2 heater; Bradley & Co., St. Louis, one E 2 feed-water heater; Auld & Conger, Poultney, Vt., one size C feed-water heater; Deuscher & Co., Hamilton, Ohio, one size D heater, and Geo. Hull, Paris, Texas, one No. 5 feed-water heater. The heaters designated as "feed-water heaters" and "improved heaters" refers to heaters of Stilwell wrought-iron type.

CONSTRUCTION DEPARTMENT.

THE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in a town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and it is often advisable to add the names of one or more incorporators as an aid to the postmaster in delivering mail.

Judson D. Perry, care of Riverview Hotel, Algonac, Mich., desires to establish plant at some point in the South for manufacturing special machines of which he is the inventor and patentee. Correspondence is solicited.

ALABAMA.

Anniston—Oil Wells.—A company will probably be organized for development of oil at Ingram's Well. P. A. Howie of the Anniston Mercantile Co. is interested.

Athens—Knitting Mill.—Robert Hendricks and associates, reported recently to establish knitting mill, will build and equip plant costing about \$14,500; will operate as Lime-stone Hosiery Co.

Birmingham—Knitting Mill.—Joseph A. Yates, Louis Minor and J. H. Fowle will incorporate company for establishment of hosiery mill.

Goodwater—Cotton-oil Mill.—It is reported that machinery has been purchased for establishment of a cottonseed-oil mill. Names of interested parties will be announced later.

Huntsville—Oil Wells.—Arrowsmith, Reese & Co. have, it is reported, optioned oil and mineral rights on 10,000 acres of land in Madison county and will develop same.

Ironton—Water-works, etc.—Ironton Water, Light & Power Co. has awarded contract to J. L. Burns & Co. of Birmingham, Ala., for construction of its proposed \$200,000 water-works system.

Mobile—Gas Plant.—J. H. Wilson and others will establish plant for manufacture of gas.

New Decatur—Oil and Gas Wells.—Alabama Oil & Gas Co., reported during the week, controls about 10,000 acres of coal and gas lands in the vicinity of New Decatur, and will begin drilling as soon as satisfactory arrangements can be made. M. C. Burch may be addressed.*

Phoenix City—Water Supply.—City has voted to increase its taxation for an improved water supply. Address "The Mayor."

Stevenson—Cotton Mill.—Broadus Cotton Mills has been organized to erect the cotton factory recently reported; capital stock will be \$50,000. S. S. Broadus is interested.

Troy—Bound-bale Comprgs.—Charles Hen-

derson will install roundlap gin and compress system in connection with his square press.

Tuscaloosa County—Coal Properties.—Geo. P. Howard, R. E. Watson and other Atlanta (Ga.) parties have purchased the lands, mines, etc., of the Coal Mining & Coke Co. in Tuscaloosa county, and will within the next ninety days make extensive increase in the development of the property, including increase of output, etc. Purchase was negotiated by R. E. Watson of Atlanta, Ga.

ARKANSAS.

Fordyce—Latch Company.—Chartered: G. P. Latch Co., with capital stock of \$40,000, by G. M. Hampton, president; W. B. Shumaker, secretary, and others.

Hot Springs—Electric-light Plant.—Owen Ford, 710 Security Building, St. Louis, Mo., is preparing plans for electric-light plant for Hot Springs, reported recently. It will be of 300 arc and 3600 incandescent lights and cost \$30,000.

Little Rock—Jewelry Factory.—Bayless Jewelry Co., reported recently as incorporated, will manufacture jewelry; department to consist of electroplating, lens grinding and manufacture of optical goods.

Mena—Oil Wells.—Chartered: New York & Arkansas Oil Co., with capital stock of \$250,000, by W. H. Tobin, president; L. Underwood, F. N. Hancock, T. S. Mahoney, D. T. Morton and others.

New Lewisville—Mercantile.—Chartered: Rosenberg Mercantile Co., with capital stock of \$10,000, by William L. Connovey and others.

Weiner—Oil Wells.—Weiner Oil Co. has been chartered, as reported recently, for prospecting for oil, gas, coal or other minerals; leases will be secured on from 40,000 to 50,000 acres, and correspondence is desired with drillers.

FLORIDA.

Jacksonville—Plumbing.—Chartered: Stafford & Ward Company, with capital stock of \$5000, to conduct general plumbing business.

Jacksonville—Bulkheading.—"Board of Public Works" has approved plans and specifications for bulkheading the lands abutting upon the St. John's river.

Jacksonville—Bulkhead.—Atlantic, Valdosta & Western Railroad Co. will construct large bulkhead along water front at Jacksonville. Address E. C. Long, vice-president.

Jacksonville—Timber-land Development, Saw-mill, etc.—East Coast Commercial Co. has been chartered (in Delaware), with \$1,000,000 capital, to cut and market the timber from 5000 acres of land in Florida; saw-mills will be erected as soon as possible. George F. Jones is president; Miller R. Creighton, secretary, and William W. Dix, treasurer, all of Baltimore, Md.

Ocala—Oil Wells.—Albertus Vogt of Dunnellon, Samuel R. Pyles of Ocala and Gaston Drake of St. Louis, Mo., will, it is reported, organize company for development of oil lands in the Withlacoochee valley.

Orlando—Electric-light Plant.—City has voted affirmatively on establishment of electric-light plant, which the Orlando Water & Light Co. will be organized to operate, as reported recently. J. M. Cheney and associates are interested.

Pensacola—Ice Factory.—H. D. Stratton, J. R. Keller and W. S. Ware have incorporated Stratton Ice Works, with capital stock of \$20,000, for manufacture of ice.

Pensacola—Cigar Factory.—Benjamin Cosio and Nicholas Gonzales of Chicago, reported recently to establish cigar factory in Pensacola, have secured quarters in new Salisbury Building, and will operate under name of Fisher, Cosio & Co.

Tampa—Novelty Works.—Lee Dekle, M. M. Jetton and J. C. Griswell are organizing a \$30,000 company for the establishment of novelty works.

GEORGIA.

Adel—Electric Plant and Water-works.—Water-works and electric-light plant will be erected. Address W. S. Witham of Atlanta.

Athens—Knitting Mill.—Collette & Ingles will establish a knitting mill.

Atlanta—Oil Wells.—Options have been taken on properties in and around Atlanta by parties who will prospect for oil. W. G. Cade, R. F. Wright, M. Swift, Samuel Stark and others own the properties.

Atlanta—Water-works Extension.—The "Water Board" states that \$37,000 additional will be required to complete the improvements and extension to the water-works system, making the amount \$220,471.

Carrollton—Electric-light Plant.—J. G. Cheney will install engine in electric-light plant.

Cartersville—Mining, Quarrying, etc.—David Iseman, T. P. Sloan, John Brittain and others have incorporated Pittsburg & Georgia Mining & Manufacturing Co. for mining and quarrying and for manufacture of pig-iron, steel and other products; capital stock \$60,000.

Fannin County—Copper Mine.—Negotiations are pending for organization of a \$1,000,000 company, with headquarters at Knoxville, Tenn., to develop on an extensive scale the Attic copper mine on Pisgah mountain controlled by Chas. A. Weller of Knoxville and R. S. Terry of Lynchburg, Va. J. V. Dettemore, R. E. Parrott, P. H. Pernot and others of Indianapolis, Ind., are interested in the property, and it is reported that negotiations are pending for erection of mine-drills and 100-ton furnace.

Gainesville—Sewerage.—Mayor R. D. Mitchell is in correspondence with the Sanitary Sewer Co. of Philadelphia, Pa., relative to constructing a sewerage system at Gainesville.

Hogansville—Cotton Mill.—Hogansville Manufacturing Co., whose mill was recently purchased by the United States Cotton Duck Corporation of Baltimore, Md., will erect additional building for enlarging its mill.

Macon—Real Estate.—Willis R. Sparks, Julian R. Lane, A. L. Miller and others have incorporated the North Macon Land Co., with capital stock of \$25,000, for development of real estate, etc.

Valdosta—Guano Factory.—Lane, Tillman & Co. will establish a \$50,000 guano factory.

Waycross—Pants Factory.—Jones Pants Manufacturing Co. has established factory.

KENTUCKY.

Flemingsburg—Oil Wells.—Fleming County Oil Co. has been organized, with capital stock of \$10,000, for development of oil wells.

Gregory—Oil Wells.—Home Mutual Oil Co. has been organized for development of 400 acres of oil lands near Gregory; capital stock \$6000. Address for particulars J. M. Richardson, Somerset, Ky.

Lexington—Water Mains.—Lexington Water Co. will, it is said, extend its mains.

Lexington—Oil Wells.—Geary Oil Co. has been incorporated, with capital stock of \$25,000, for development of oil lands. W. J. Ahern is president; Edwin Dowling, vice-president; John A. Geary, secretary, and Wm. J. Geary, treasurer and general manager. Address president at 51 East Short street.

Louisville—Vinegar Factory.—Thomas & Bohue have made plans for new vinegar factory of Jones Bros. & Co., recently burned.

Murray—Water-works.—Town will probably construct system of water-works. Address N. W. Martin.

Somerset—Refinery, etc.—National Transit Co. is building a new 15,000-barrel steel tank, which will increase its storage capacity to 25,000 barrels; company has also decided to establish an oil refinery.

LOUISIANA.

Ananias—Oil Wells.—Atlanta & Shreveport Oil & Gas Co. has been incorporated at Lauta, Texas, with capital stock of \$120,000, for the development of oil wells at Ananias, La.

Mechanichan (P. O. New Orleans)—Water-works.—J. R. Langridge, secretary board of trustees, will open bids July 1 for furnishing water pipe, hydrants, etc., and for laying and setting same.

Opelousas—Oil-fuel Plant.—Oil will be used as fuel for operating city electric-light plant and water-works; B. A. Littell, mayor.

MARYLAND.

Baltimore—Cabinet Factory.—Chartered: Boykin Cabinet Co., for manufacturing novelties, by John W. Chew, Chas. F. Berger, L. E. Read and others; capital stock \$12,000.

Baltimore—Knitting Mill.—Thomas Dodd of Berkley, Va.; M. F. Chambers of Hamilton, Ohio, and W. T. Young of New York are negotiating organization of a \$50,000

stock company for establishment of ladies' knit underwear mill in Baltimore with capacity of 400 dozen suits per day. Mr. Chambers is at the Eutaw House, Baltimore.

Baltimore—Coke Industry.—W. L. Elkins, Jr., president of the United Coke & Gas Co., New York, N. Y., is quoted as saying that contract has recently been closed between his company and the Maryland Steel Co., by which a large plant of ovens will be erected at Sparrow's Point for the manufacture of metallurgical coke and illuminating gas of high power to be furnished to Baltimore.

Cumberland—Gas Plant.—Cumberland Gas Light Co. has awarded contracts for enlargement of plant to three times present capacity.

Frederick—Amusement Company.—Joseph W. Gaver, H. F. Shipley, Henry H. Brissh and others have incorporated Athletic Park Co., with capital stock of \$5000, for conducting amusement park.

Hyattsville—Water-works.—The contract of the city for water-works, previously reported, has been annulled, and a new contract will be placed. Fred Minshall, mentioned several weeks ago, is engineer in charge. Plans and specifications are now ready.*

MISSISSIPPI.

Forest—Woodworking Machinery.—Wm. F. Rochester will establish plant for manufacturing carpenters' and builders' supplies.

Greenville—Refinery.—Chartered: Greenville Refining Co., by James Robertshaw, J. A. Crawford, H. C. Watson and others.

MISSOURI.

Hayti—Mercantile.—Chartered: Stephens Mercantile Co., with capital stock of \$15,000, by John Stephens and others.

Kansas City—Cigar Factory.—H. Switzer Cigar Co. has been incorporated, with capital stock of \$21,000, by Henry W. Switzer and others.

Kansas City—Cabinet, etc., Factory.—Kansas City Cabinet Manufacturing Co., reported recently as incorporated, will operate the plant formerly operated by C. W. Garman Manufacturing Co. in the manufacture of stairs, house-finish and furniture, etc.

St. Louis—Lumber Company.—Chartered: Deerfield Farm & Lumber Co., with capital stock of \$50,000, by M. C. A. T. and S. H. Wright.

NORTH CAROLINA.

Durham—Water-works Extension.—Durham Water Co. has commenced improvements to cost \$75,000, previously noted.

Forest City—Telephone Company.—Forest City Telephone Co. has been incorporated, with capital stock of \$10,000, by J. N. Moore, C. R. Simmons, W. W. Pool, D. E. Young and others.

Morganton—Bridges.—Roanoke Bridge Co. has contract for constructing two iron bridges across Catawba river at a cost of \$9000.

Mt. Airy—Electric Plant and Water-works. City has decided against issuance of bonds for water-works and electric-light plant.

Wilmington—Dairy.—Shadeland Dairy, recently reported burned, A. O. McEachern, manager, will be rebuilt to about double former capacity.*

SOUTH CAROLINA.

Anderson—Drug Company.—Chartered: Acme Drug Co., with capital stock of \$40,000, by R. S. Ligon, president; D. A. Ledbetter, vice-president, and J. T. Ligon, secretary.

Chester—Hardware Company.—Chartered: Bewley Hardware Co., by W. D. Bewley and others; capital stock \$10,000.

Fetteressa—Manufacturing, etc.—Charleson Mining & Manufacturing Co., W. M. Wallace, secretary, will increase its capital stock to \$3,000,000.

Newberry—Laundry.—Chartered: Newberry Steam Laundry Co., with capital stock of \$2500, by B. C. Matthews, president; M. A. Carlisle, vice-president; I. H. Hunt, secretary, and L. B. Aull, treasurer.

Orangeburg—Manufacturing.—J. C. Wanamaker Manufacturing Co. has increased its capital stock from \$7000 to \$10,000.

TENNESSEE.

Briceville—Coal Mines, etc.—Sloss-Sheffield Steel & Iron Co. of Birmingham, Ala., states that it is not connected with the company reported recently as organized for develop-

ment of coal mines at Briceville, Jeilico and Coal Creek, and for purchase of Clinton Zinc Works. The company's mining operations are confined exclusively to Alabama.

Chattanooga—Oil Wells.—Tennessee Southern Oil Co. has been incorporated, with capital stock of \$50,000, for development of oil wells in Tennessee; incorporators are Col. E. Watkins, F. M. Thompson, W. H. Watkins, William Burns and others.

Chattanooga—Telephone System.—Franchise has been granted to American Telephone Co. for construction of system from Chattanooga to Rome, Ga.

Memphis—Cotton Factories.—Planters' Cotton Co. will conduct exclusively a cotton-factorage business at 332 Front street.

Chestoa—Cotton Mill.—A large cotton mill is reported to be erected. Names of interested parties will be announced later.

Erin—Buggy Factory.—Buggy factory will be removed from Danesville, Ohio, to Erin and managed by Albert Kimble.

Knoxville—Marble Quarry.—J. J. Craig & Co. are opening up a new marble quarry.

Mascot—Zinc Mine.—J. C. Sterchi, W. R. Johnson, H. H. Cate, W. S. Bradley and others have leased zinc-mining properties from J. G. Lang at Mascot and will organize a stock company with capital of \$300,000 for developing same. Address Mr. Sterchi at Knoxville.

Memphis—Screen-door Factory.—Wabash Screen Door Co. of Rhinelander, Wis., has awarded contract for erection of its proposed factory buildings in Memphis, recently reported; main building will be 80x304 feet, three stories and basement; engine-room 40x60 feet, three stories, and boiler-room 40x60 feet, three stories; plant will be equipped with automatic sprinklers, dust collectors, electric plant, elevators, etc.

Samburg—Oil Wells.—Albert Rains and others have organized the Reelfoot Lake Oil, Gas & Mining Co. to prospect for oil and gas.

Union City—Oil Wells, etc.—The \$20,000 company reported recently as formed for development of oil, etc., will be known as Reelfoot Lake Oil, Gas & Mining Co. John Shaw of Samburg is president.

TEXAS.

Alvarado—Lumber Company.—Farmers & Merchants' Lumber Co. has been incorporated, with capital stock of \$10,000, by L. B. Trulove, B. M. Sansom, W. A. Houchin and others.

Austin—Oil-manufacturing Company.—Austin Oil Manufacturing Co. has increased capital stock from \$120,000 to \$150,000.

Beaumont—Publishing.—Chartered: Beaumont Daily Herald Publishing Co., with capital stock of \$20,000, by Richard Respass, Frank E. Jones and Jas. T. Denton.

Beaumont—Oil Wells.—Texas Oil Fields, Limited, has been organized in London, England, with capital stock of \$1,819,000, and acquired 7000 acres in the Beaumont district, which it will develop.

Beaumont—Oil Wells.—Chartered: Iowa Beaumont Oil Co., with capital stock of \$500,000, by Lew W. Anderson, Luther A. Brewer of Cedar Rapids, Iowa; Elmer E. Taylor of Traer, Iowa, and others.

Cameron—Cotton Gin.—Chartered: Needham Gin Co., with capital stock of \$10,000, by W. J. Needham, W. M. Sprinkel and M. J. Moore.

Cameron—Mercantile.—W. M. Sprinkel and others have incorporated Gaston-Sprinkel Mercantile Co., with capital stock of \$50,000.

Cleburne—Copper Mines.—L. D. Jobe, E. B. Evans, Hugh H. Tucker and G. A. St. Louis have discovered and will develop copper mine.

Dallas—Water-works.—The issuance of \$100,000 additional water-works improvement bonds has been recommended, \$50,000 to be used for completing general improvements and betterments of water system now in progress, and \$50,000 for constructing pipe line. Address "The Mayor."

Dallas—Medical College.—Chartered: Physio-Medical College, capital stock \$5000; incorporators, J. W. Skiles, R. H. H. Burnett and others.

Enloe—Cotton-oil Mill.—Delta County Cotton Oil Co. reported lately as organized, will install a two-press mill.

Fayetteville—Creamery.—Fayetteville Creamery Association will be incorporated for operation of creamery and cheese plant. A. Heinsohn, H. W. H. Zapp, Frank Polansky and others are the incorporators.

Gainesville—Cotton Compress.—Shippers' Compress & Warehouse Co. reported recently under Dallas as incorporated, will construct compresses in a number of cities,

including Gainesville, arrangements for which are now being made. **Nell P. Anderson** of Fort Worth is president.

Houston—Drug Company.—Chartered: City Drug Co., with capital stock of \$20,000, by S. W. Hawley, Chas. R. Hodgin and others.

Huntington—Coal Company.—Chartered: Dallas Coal Co., with capital stock of \$35,000, by John E. Finney, president; John A. Finney, vice-president, and Thomas Freeze, secretary and treasurer.

Luling—Street Improvements.—City will improve its streets. Address "The Mayor."

Marlin—Mercantile.—Chartered: Rush, Gardner & Bartlett Company, with capital stock of \$75,000, by C. W. Rush and others.

Norse—Gold Mines, etc.—O. M. Olson, M. J. Zinberg, John Roystad, O. K. Lunger and others have incorporated Norse Gold Mining & Development Co., with capital stock of \$50,000, to engage in general mining business.

Palestine—Brick Works.—C. J. Granger and John Kalstad will incorporate a company, with capital stock of \$15,000, for establishment of a plant for manufacture of pressed brick.

Paris—Cotton Compress.—A company has been organized for the establishment of a cotton compress. Names of interested partners will be announced.

Pecos—Oil Wells, etc.—Union Oil & Water Co. has been incorporated, with capital stock of \$100,000, by James E. Brown, F. W. Johnson and R. D. Gage.

Pittsburg—Airship Company.—Ezekiel Airship Co. has been incorporated, with capital stock of \$20,000, to manufacture airships, etc., by Burrell Cannon, J. J. Tapp, A. J. Asken and others.

Richmond—Telephone Company.—Chartered: Richmond-Damon Mound Telephone Co., with capital stock of \$10,000, by D. R. Pearson, John W. Moore and others.

Sherman—Oil Refinery.—Texas & Indian Territory Cotton & Oil Co. will erect an oil refinery with capacity of 500 barrels per day.

Sherman—Townsite Company.—Chartered: Black Land Townsite Co., with capital stock of \$150,000, to conduct real-estate business, by Sam Lazarus, T. La Hache and others.

Sour Lake—Oil Wells.—Luck Kate Oil Co., with capital stock of \$150,000, has been incorporated by N. G. Jordan, J. E. Newton and J. P. Wintz.

Stowell—Oil Wells.—Chartered: Stowell Oil & Development Co., with capital stock of \$100,000, by J. C. Gerken, L. H. Windsor, S. A. Spencer and others.

Texarkana—Training School, etc.—Chartered: Texarkana Sanitarium Hospital and Training School for Nurses, capital \$2800, by G. C. Abell, S. A. Collam and T. F. Kittrell.

Waco—Mercantile.—Chartered: Nash, Robinson & Co., by E. R. Nash and others; capital stock \$250,000.

Waco—Chartered: White Steel Gate Co., with capital stock of \$5000, by John F. Sedwick, S. J. Hanson and W. A. Sedwick.

Whitewright—Water-works.—City has voted issuance of bonds for addition to water-works. Address "The Mayor."

Whitewright—Milling.—Chartered: Beatrice Milling Co., with capital stock of \$25,000, for erecting and operating flour mills, by W. N. Stone, J. F. Lilley, C. B. Bryant and others.

VIRGINIA.

Chase City—Laundry.—Chase City Steam Laundry has been established; Woodyard & Berry, proprietors.

Danville—Ruffin, Edmunds & Co. will equip a factory with daily capacity of 5000 pounds that will crush and grind to powder lump charcoal and coarse granulated salt, and then to bolt this material, giving a finished product as fine as flour; plant will be operated by steam.*

Dinwiddie C. H.—Saw-mill.—Flippen & Boswell have rebuilt their saw-mill, lately reported burned.

Ettrick—Bulb Company.—American Bulb Co. has been incorporated, with capital stock of not less than \$10,000 nor more than \$50,000, for planting, growing and trading in bulbs and plants of all kinds. J. de Garris Bourgaize is president; Basil de Garris Bourgaize, secretary, and George Cameron, Jr., treasurer. Messrs. Bourgaize have expended \$10,000 during past year on seven acres of land in planting forty varieties of daffodils.

Ludlow—Woolen Mill.—It is reported that a woolen mill will be erected and that equipment has been bought.

Manchester—Furniture and Mattress Factory.—James River Furniture & Mattress Co. has been incorporated and purchased plant formerly operated by C. S. Stacy; has enlarged same and will install new machinery for manufacture of furniture and mattresses.

Portsmouth—Liquor Company.—H. G. Williams & Co. have incorporated for continuing liquor business; capital stock \$100,000; H. G. Williams, president.

Richmond—Ice and Cold-storage Plant.—Merchants' Cold Storage & Ice Manufacturing Co. has increased capital stock to \$200,000, as reported during the week, for the purpose of enlarging its plant.

Richmond—Implement Works.—Virginia-Carolina Hardware Co. has been incorporated, with capital stock of from \$25,000 to \$100,000, for manufacturing iron, implements, etc. John B. Pinder is president; Walter S. Pinder, vice-president, and Henry G. Ellett, secretary and treasurer.

Wise County—Coal Mines.—Cramp Steel Co., organized for development of ore beds in Ontario, will develop coal mines in Wise and Dickson counties, Virginia. Among those interested are William M. Cramp, Charles D. Cramp and Dr. W. Seward Webb of New York, N. Y.

WEST VIRGINIA.

Kingwood—Coal Mines, etc.—Kingwood Coal & Coke Co. has been organized, with capital stock of \$100,000, by J. S. Parker, J. R. Smith, G. F. Kelley, A. S. Walter and others, all of Scottsdale. Company's principal office will be at Scottsdale and works at Kingwood.

Martinsburg—Slate Quarry.—Berkeley Slate Co. has been organized for development of slate quarry in Berkeley county. John Lovett is also interested in development of slate quarry in this county, and H. E. Hughes of Delta, Pa., will superintend the work.

Parkersburg—Filter Plant.—City is considering installation of filter plant. Address "The Mayor."

Pocahontas County—Coal Properties.—United States Steel Corporation of New York and Pittsburg is said to be negotiating for the purchase of the Flat Top Coal Land Association properties, covering the territory from Pocahontas to Gray, including the celebrated Pocahontas coal fields.

Wheeling—Coal Mines.—Robert F. Denison, Chas. G. Owens, G. F. Goss and others have incorporated the Pittsburg, Wheeling & Lake Erie Coal Co., with capital stock of \$1,250,000. Headquarters are in Cleveland, Ohio.

Wheeling—Oil Wells.—Chartered: Petroleum Producing Co., with capital of \$500, for boring for oil, gas, etc.; incorporators, J. T. Hearow, D. B. Stewart, C. C. Ross and others, all of Pittsburg, Pa.

BURNED.

Alexandria, La.—Union Lumber Co.'s mill. loss \$12,000.

Cheneyville, La.—Gilmore & McGinnis' sugar refinery near Lloyd; estimated loss \$50,000.

Eagle Ford, Texas.—Luck's Flour Mill; loss \$10,000.

BUILDING NOTES

Abilene, Texas—Buildings.—R. M. Love, comptroller of public accounts, Austin, will receive sealed proposals until July 6 for erection of administration building, two infirmaries, boiler-house and smokestack and pumping station, laundry and four cottages for Epileptic Colony at Abilene. Plans and specifications of buildings may be seen and forms of proposals can be had at office of J. L. O'Connor, architect, Austin. Certified check for 2 per cent. of amount of bid required; also bond. Usual rights reserved.

Annapolis, Md.—Foundation.—A. S. Crowninshield, chief bureau of navigation, Navy Department, Washington, D. C., will open proposals July 12 for construction of foundation for marine engineering and naval construction building at Annapolis. Blank forms of proposals and specifications will be furnished and plans may be seen on application at the bureau, at United States Naval Academy, Annapolis, or at office of Ernest Flagg, architect, 35 Wall street, New York.

Augusta, Ga.—Dwelling.—Mrs. E. M. Dawson will erect large dwelling.

Baltimore, Md.—Academy.—The improvements reported recently to be made to the Academy of Music by Nixon & Zimmerman, lessees, will include new heating plant and new stage.

Carrollton, Ga.—Hotel.—C. B. Simonton will rebuild Southland Hotel recently burned.

Charleston, S. C.—Clubhouse.—Chicora Golf Club will erect a new club building.

Charlotte, N. C.—Building.—J. H. Weddington & Co. will enlarge their store building by erection of a two-story addition; ele-

vator will be installed and other improvements made.

China Grove, N. C.—Building.—China Grove Hardware Co. will erect three-story brick building.

Clarksburg, W. Va.—Building.—Leatherburg Shoe Co. will erect building, four stories, of brick and stone, 40x100 feet.

Columbia, S. C.—Building.—John P. Thomas, Jr., will erect a \$10,000 flats building; contract awarded to Carolina Contracting Co.

Columbia, S. C.—Building.—Epworth Orphanage is erecting two-story brick and stone school building, as reported recently; will also erect dining hall, kitchen, bakery, cold-storage rooms, etc.; G. W. Waddell, superintendent.

Columbus, Ga.—Stores and Stables.—Fletcher & Bullock have awarded contract to Barlow Bros. for erection of proposed stores and stables; cost \$15,000.

Columbus, Ga.—Paving.—City will probably expend \$4000 for paving the present plank portion of the wharf with vitrified brick. Address "The Mayor."

Cumberland, Md.—Warehouse.—Cumberland Gas Light Co. will build warehouse.

Florence, S. C.—Hotel.—E. F. Douglass, P. H. Edwards, J. W. Ragsdale and others will incorporate a \$30,000 company for erection of a 40-room hotel.

Gainesville, Ga.—Cottages.—Prof. A. W. Van Hoose will erect two cottages to cost \$1500 each.

Gainesville, Ga.—Buildings.—Alexander & Thomas will erect large brick building. Mrs. Thornton will build modern brick structure.

Gatesville, Texas—Church.—J. R. Baby wants architect's plans for a stone church to cost \$3000.

Greensboro, N. C.—Buildings.—A practice and observation school building will be erected in connection with State Normal and Industrial College, as recently reported; cost \$15,000; Charles D. McIver, president.

Higginsville, Mo.—Hospital.—Board of managers, H. A. Newman, chairman, will receive sealed proposals until July 6 for erection and completion of a two-story brick hospital building for Confederate Home of Missouri; this includes completion in all details except heating, according to plans and specifications, which can be seen at office of Institution or of Opel & Miller, architects, Jefferson City, Mo. Certified check for \$500 must accompany each bid. Bond for \$12,000 required and usual rights reserved.

Hughes Springs, Texas—Storehouses.—Contracts will be awarded for erection of five brick storehouses. Address C. C. Smith Co.

Huntsville, Texas—Building.—Sam Houston Normal Institute will open bids July 29 for construction of library building. Plans and specifications at offices of J. L. O'Connor, Austin, Texas; Olie J. Lorehn, Houston, and at the institute. Certified check for 2 per cent. of bid must accompany proposals. Bond required and usual rights reserved.

Jackson, Miss.—Hotel.—Andrew J. Bryan & Co. are preparing plans for the \$100,000 hotel previously reported.*

Jackson, Tenn.—Library.—Parris Bros. have contract at \$25,300 for erection of the Carnegie Library.

Jacksonville, Fla.—Hotel.—Henry M. Flagler of New York will, it is reported, rebuild the St. James Hotel at Jacksonville at a cost of \$3,000,000.

Jacksonville, Fla.—Warehouse.—American Fiber Co. is erecting storehouse, as recently reported; building is two stories, 40x100 feet; company will erect several such warehouses.

Jacksonville, Fla.—Church.—Sealed proposals will be opened by Presbyterian Church July 8 for erection of edifice after plans and specifications which may be seen at office of C. D. Rinehart, Room 6, 120 West Bay street; bids to be filed with T. V. Porter and to be accompanied by certified check for \$500. Bond required and usual rights reserved.

Jonesboro, Tenn.—Hotel.—Ross Smith of Jonesboro is interested in erection of hotel recently mentioned.

Knoxville, Tenn.—Buildings.—E. J. Sanford will repair buildings 608-610 Gay street at a cost of \$3000. S. C. House will erect \$3000 residence.

Knoxville, Tenn.—Office Building.—E. J. Sanford and Dr. C. Deaderick will build a six-story office building to cost \$50,000.

Knoxville, Tenn.—Depot.—Southern Railway, Frank S. Gannon, general manager, Washington, D. C., will award contract about July 15 for erection of an \$80,000 depot at Knoxville.

Leonard, Texas—Building.—J. O. Kuykendall, president of school board, will open bids July 3 for erection of a seven-room brick and stone school building. Plans can

been at First National Bank, Leonard; at office of J. M. Nelson & Co., Sherman, Texas, and at 319 Main street, Denison, Texas. Certified check for \$250 with each bid. Usual rights reserved.

Lexington, Ky.—Dormitory.—Building committee of the State College has awarded plans for the proposed dormitory building to Architect H. L. Rowe.

Little Rock, Ark.—Depot, etc.—St. Louis, Iron Mountain & Southern Railway Co. will build large freight depots, tracks and other facilities; work upon proposed 600-foot steel and stone building will be commenced at once. W. J. McKee, superintendent, may be addressed.

Louisville, Ky.—Building.—Thomas & Boone have made plans for remodeling and addition to Sisters of Mercy Academy.

Nashville, Tenn.—House, etc.—Board of public works, Alex. G. Flite, chairman, will open bids July 2 for constructing house and gateways in Watkins Park. Plans and specifications can be seen at mayor's office.

New Orleans, La.—Hotel.—St. Charles Hotel Co. is having plans made by Stone Bros. for erection of a glass pavilion 100x65 feet; 600 feet of glass will be required; improvements to hotel will cost \$22,000; A. B. Wheeler, president.

Norfolk, Va.—Club.—The Country Club will build new clubhouse and make other extensive improvements at Sewell's Point.

Norfolk, Va.—Dwelling.—Wyatt & Nolting of Baltimore, Md., have prepared plans for erection of residence for Dr. C. R. Granby.

Paducah, Ky.—Hotel.—George M. Price, B. R. Kurkendall, W. I. Halby and J. E. Hays have organized company for erection of hotel.

Portsmouth, Va.—Church.—S. B. Hutchins has received contract at \$18,500 for erection of proposed edifice.

Raleigh, N. C.—School Building.—M. A. Moser has received contract at \$18,350 for erection of textile school at the Agricultural and Mechanical College.

Raleigh, N. C.—Theater.—R. C. Rivers, manager of Academy of Music, contemplates transforming the Academy into an up-to-date theater and auditorium at a cost of \$20,000.

Richmond, Va.—School—Architect.—Dimock has completed details and specifications for addition to complete Nicholson street building; cost \$17,000.

Salisbury, Md.—Dwelling.—Jackson C. Gott of Baltimore has prepared plans for \$10,000 residence for Wilbur F. Jackson.

San Antonio, Texas—School Building.—School building to cost \$10,000 will be erected for colored pupils. Address "The Mayor."

Stratford, Texas—Courthouse.—C. F. Randolph, county clerk, will open bids July 8 for erection of two-story frame courthouse. Bond required and rights reserved.

Union, S. C.—Office and Store Building.—T. C. Duncan will erect office building and large store building after plans by Frank P. Milburn of Columbia, S. C.; cost \$18,000.

Union, S. C.—Bank Building.—Frank P. Milburn of Columbia, S. C., has prepared plans for new bank building for People's Bank of Union, Frank Arthur, president; cost \$8,000.

Washington, D. C.—Buildings.—Westcott & Story have charge of proposed \$1,000,000 hotel to be erected on site of present Richmond Hotel. Francis Lee Allen will erect an \$8000 residence. Miss Fannie Scott will erect \$15,000 dwelling. Howe Totten is having plans made for a five-story apartment-house.

RAILROAD CONSTRUCTION.

Railways.

Alesia, Md.—The railroad to be built by the Rockdale Powder Co. will be about three miles in length and standard gauge. Contracts for constructing it may be let in the near future. Rail and rolling stock will be needed. William J. Koller, secretary of the company, may be addressed at York, Pa.

Arlington, Ga.—The Columbus & Arlington Railway Co. has been incorporated in Georgia to build a line about ninety miles in length between the towns mentioned. Among those interested are J. F. Hanson of Macon, also President John M. Egan of the Central of Georgia Railway Co.

Ashland City, Tenn.—Cheatham county will probably vote on the question of issuing \$50,000 in bonds in aid of the proposed Nashville & Clarksville Railroad, which is being promoted by Jere Baxter of Nashville, Tenn., and others.

Atlanta, Ga.—The State authorities have issued a charter to the Atlanta & Birmingham Air Line Railroad Co. recently organ-

ized to build from Atlanta to a connection with some railroad entering Birmingham. Among those interested are Jack J. Spalding and L. P. Nelson of Atlanta. It is reported that the company, which is capitalized at \$500,000, has been organized in the interest of the Seaboard Air Line.

Baltimore, Md.—It is reported that surveys have been made for another electric line between the eastern suburbs of Baltimore and Sparrow's Point by way of the North Point road and Sparrow's Point road. The estimated distance is ten and one-half miles. C. A. Howell of Chester, Pa., is reported as engineer.

Bandana, Ky.—It is reported that arrangements are being made to construct an electric railroad between Bandana and Paducah. John W. Wilkins of Bandana is one of the promoters of the enterprise.

Brenham, Texas.—It is reported that arrangements are being made to construct a railroad line from Brenham through a portion of the Brazos valley, an estimated distance of forty miles.

Bristol, Va.—It is reported that the total length of the Mt. Rogers & Eastern Railroad, recently referred to in the Manufacturers' Record, will be about 400 miles. A portion of the route surveyed is between Bristol, Damascus and Independence, Va. It is to terminate at some point on tide-water.

Crowley, La.—A company has been organized to build an electric railroad between Crowley and Rayne, an estimated distance of six miles. Among those interested are W. W. Duson and Abbott Bros. of Crowley.

Cumberland, Md.—Mortgages to secure bond issues amounting to \$450,000 have been given by the railroad companies interested in the electric lines between Cumberland, Frostburg and Lonaconing, Md., in favor of the Real Estate Trust Co. of Philadelphia. The line, which is under construction, will be twenty-two miles long and cost \$450,000. The Penn State Construction Co., Drexel Building, Philadelphia, is the general contractor.

Danville, Va.—The directors of the Danville & Western Railroad Co. have decided to change the line to standard gauge between Danville and Waller's Station, where connection is formed with the Norfolk & Western system. A. B. Andrews, president of the Danville & Western Railroad Co., may be addressed at Raleigh, N. C.

Dothan, Ala.—Further particulars relative to the Dothan, Hartford & Florida Railroad are furnished by President J. P. Peiham, who states that surveys will be completed by July 15, and that Eastern capitalists have become interested in the road. Its total length will be 117 miles.

Fort Smith, Ark.—The Oklahoma, Colorado & Chickasaw Railroad Co. has been organized, with \$60,000,000 capital stock, to build a road from Fort Smith, Ark., to Denver, Col. The estimated length of the line is 1000 miles.

Fort Smith, Ark.—Among those interested in the Oklahoma, Colorado & Chickasaw Railroad, referred to in this column, are H. E. Havens of Enid, Okla.; P. W. Maston of Kansas City, Mo., and W. O. Burmont of Gainesville, Texas.

Fredericksburg, Va.—W. E. Coons of Culpeper, secretary of the Fredericksburg & Washington Railroad Co., informs the Manufacturers' Record that bids will be received from engineers on July 10 at Culpeper for the purpose of making surveys between Fredericksburg and Washington, Va.

Gainesville, Ga.—It is reported that the Gainesville & Dahlonega Railroad Co. has decided to lay its track with 60-pound rails between the towns mentioned, also within the city limits. A. J. Warner is president.

Hawkinsville, Ga.—The Hawkinsville & Florida Southern Railway Co. has decided to build its proposed branch from Davisville, in Wilcox county, to Ocilla, an estimated distance of sixteen miles. The branch will be built by way of Fitzgerald, Ga. George H. Purvis at Atlanta is secretary of the company.

Kingston, Tenn.—The last report concerning the extension of the Tennessee Central Railroad to Kingston is to the effect that work will begin July 1 and be completed as soon as possible. J. E. Rodes at Nashville is general manager.

Memphis, Tenn.—Surveys are now in progress for the proposed extension of the St. Louis Southwestern Railroad between Malden, Mo., and Memphis. F. H. Britton at St. Louis is president of the company.

Mineral Wells, Texas.—It is reported that the necessary rails have been secured to complete the Weatherford, Mineral Wells & Northwestern Railroad from Mineral Wells

to Graham, an estimated distance of forty miles. L. M. Fouts at Mineral Wells is president of the company.

Montgomery, Ala.—The Montgomery Northern Railway Co. is now receiving subscriptions in stock to its road at various points upon the line. John W. Watts at Montgomery is president of the company.

Nashville, Tenn.—W. B. Doddridge, general manager of the Tennessee Central Railway Co., confirms the statement that the company has been incorporated to build between Nashville and Clarksville, Tenn. No surveys have been made as yet.

New Orleans, La.—The New Orleans, Ansley & Birmingham Railway Co. has been organized to build a railroad, it is reported, between New Orleans and some line reaching Birmingham, Ala. Among those interested are M. E. Ansley and H. D. Coleman. M. E. Ansley has been elected president, and C. D. Stewart, secretary. Mr. Ansley may be addressed at the town of this name in Mississippi.

Newton, Texas.—The Sabine & Northern Railroad Co. has been organized in Texas to build between Newton and a connection with the Southern Pacific system in Orange county. A branch may also be built to a junction with the Gulf, Beaumont & Kansas City road in Jasper county.

Orange, Texas.—John W. Maxcy, chief engineer of the Orange & Northwestern Railroad, advised the Manufacturers' Record that as soon as the first thirty miles are completed proposals will be received for an additional extension of the same length. The company may want some 60-pound railway rails, also freight cars.

Richmond, Va.—The Richmond, Fredericksburg & Potomac Railroad Co. It is stated, has determined to build a number of sidings between Richmond and Quantico, and it is possible that improvements may be made during the present year. E. T. D. Myers at Richmond is president of the company.

Roanoke, Va.—It is reported that contracts have been let for a second track ten miles long of the Norfolk & Western between Oakdale and Tulip, Va., and six miles long between Webster and Denton. C. S. Churchill at Roanoke is chief engineer.

Rockville, Md.—Surveys are now being made of the route of the Washington, Westminster & Gettysburg Railroad, proposed between the cities mentioned. George H. Harris of Washington is president of the company.

Southern Pines, N. C.—Clark J. Brown, one of the promoters of the Fayetteville & Albemarle Railroad, writes that arrangements have been made with the Connecticut Construction Co. of Danbury, Conn., to build between Fayetteville and Southern Pines. It will be an electric road, about fifteen miles in length.

Springfield, Mo.—It is reported that two surveys have been made of the proposed Springfield, Jefferson City & Chicago Railroad between Springfield and Versailles, Mo. William Woodburn of Des Moines, Iowa, is president, and J. G. Briggs, general manager of the company.

Thomas, W. Va.—E. D. Durham of Thomas is interested in the proposed electric railroad between Coketon, Davis and Thomas. It is expected to organize a company in the near future.

Vidalia, La.—It is reported that surveys are being made in the interest of the St. Louis, Iron Mountain & Southern will extend through portions of Arkansas and Louisiana to Vidalia. Russell Harding at St. Louis is vice-president of the company.

Wadley, Ga.—The Stillmore Air Line Railroad Co. announces that its extension to Wadley has been completed, and trains are now in operation. Connection is made at Wadley with the Central of Georgia, the Wadley & Mt. Vernon and the Louisville & Wadley railroads.

Walton, Texas.—It is reported that the Southern Pacific Railway Co. is surveying a line between Walton and Standart, an estimated distance of forty miles, with the view of shortening the present mileage. G. W. Bosche at Galveston is engineer.

Woodbury, Tenn.—The plan to build a railroad between Woodbury and a connection with the Tennessee Central Railroad has resulted in the formation of the Woodbury & Nashville Railway Co. with \$100,000 capital stock. Cannon county, Tennessee, will probably decide on the question of issuing \$125,

000 in bonds to aid the enterprise by special election. The road will be built between Woodbury and Murfreesboro, an estimated distance of twenty miles. J. T. Crass at Chattanooga is one of the principal promoters.

Street Railways.

El Paso, Texas.—A syndicate headed by E. W. Davis, it is reported, has purchased the street-railway systems of El Paso and Juarez, and will make several improvements to them. Mr. Davis is said to represent Pittsburg capitalists.

Norfolk, Va.—The Norfolk Heat, Light & Power Co. has applied for a franchise to construct an electric railroad in the city and suburbs. W. D. Pender is president of the company.

Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Adding Machine.—G. W. Hinsey, Apalachicola, Fla., wants addresses of parties handling adding machines.

Boiler and Engine.—See "Electrical Equipment, etc."

Boiler and Engine.—Cameron Cotton Mill, John W. Scott, president, Sanford, N. C., will need boiler and engine, shafting, belting, railway head, etc.

Bottling Plant.—Crazy Well Water Co., Mineral Wells, Texas, will in the fall purchase bottling plant, engine, dynamo, etc.

Burlap Manufacturers.—Lindsay & Co., Portsmouth, Va., want to correspond with dealers in and manufacturers of burlaps and barrel covers.

Cotton Machinery.—See Boiler and Engine.

Dynamo.—See "Bottling Plant."

Electrical Equipment, etc.—Andrew J. Bryan & Co., Jackson, Miss., desire to correspond with manufacturers of elevators, electric plants, hotel telephones, ranges, switchboards, boilers, engines and other equipment for hotel.

Electric Chandeliers.—Wm. H. Brantley, Troy, Ala., wants catalogues and price-list of electric chandeliers.

Electric-light Plant.—Sealed proposals will be received until July 27 at United States engineer office, 2001 I street N. W., Washington, D. C., for furnishing and installing electric-light plant at Fort Washington, Md.; information furnished on application; Chas. J. Allen, lieutenant-colonel, engineers.

Electric-light Plant.—D. A. Bardwell, mayor Starkville, Miss., wants bids on dynamo, engine 100 horse-power, boiler, poles, wire, etc., to erect and equip plant of twelve or fifteen arc lights and 1200 or 1400 incandescent lights of sixteen candle-power.

Elevators.—See "Electrical Equipment, etc."

Engine.—See "Bottling Plant."

Engine.—Ware Furniture Manufacturing Co., P. O. Box 323, Atlanta, Ga., wants a second-hand 200-horse-power Corliss engine.

Feed Mill.—Sidney Willoughby, Crosby, Ala., wants a crusher for crushing corn, cornstalks, shuck and ear for feed.

Fire Protection.—T. B. Franklin, Columbus, Miss., wants bids on improved sprinklers for fire purposes in cotton mill.

Hose.—Sealed proposals addressed to "Board of Awards, care of City Register, City Hall, Baltimore, Md." will be opened July 10 for furnishing fire department with 10,000 feet, more or less, fabric fire hose, rubber lined, two and one-half inches internal diameter, fitted with Gilmore couplings, Higbee thread complete. Certified check for \$500 and sample of hose must accompany each bid. Specifications to be furnished by bidder or bidders. Usual rights reserved.

Ice Plants.—J. H. Bankhead, Jr., Jasper, Ala., wants addresses of manufacturers of ice plants.

Laundry Machinery.—J. H. Bankhead, Jr., Jasper, Ala., wants addresses of manufacturers of laundry machinery.

Manufacturers.—Memphis Novelty & Manufacturing Co., 34 Mulberry street, Memphis, Tenn., wishes to place orders for manufacture in 10,000 lots for small wood roller one inch in diameter, with groove for small cord; also a thin sheet-metal jacket stamped in fancy pattern.

Masts.—Petersburg Iron Works Co., Petersburg, Va., wants addresses of manufacturers of steel-riveted masts for vessels.

Mining Machinery.—W. H. Crawford & Co., 203 Union street, Nashville, Tenn., wants estimates on machinery to mine coal, capacity ten carloads or more daily, for 3000 acres.

Paving.—See "Sewerage System."

Piping.—Bids will be opened early in July for furnishing a considerable lot of piping for an India city. Richard Watson, 59 Second Line Beach, Madras, India, invites estimates by cable on this piping. Specifications can be seen at office of Manufacturers' Record. Estimates will have to be made in pounds sterling, and there is not sufficient time to communicate by mail.

Pulverizing Machinery.—Rufin, Edmunds & Co., Danville, Va., want machinery for 5000 pounds capacity to crush and grind to powder lump charcoal and coarse granulated salt, and then bolt this material, giving product as fine as flour; steam-power.

Pump.—Shadeland Dairy, A. O. McEachern, manager, Wilmington, N. C., will be in the market for a hot-air or steam pump.

Pump.—R. D. Cole Manufacturing Co., Newnan, Ga., is in the market for a fire pump of 750 to 1000 gallons; second-hand or new.

Railway Equipment.—Rockdale Powder Co., William I. Koller, secretary, York, Pa., will require an engine and rails, not less than sixty-five pound.

Railway Equipment.—John W. Maxcy, Houston, Texas, wants bids on a few miles of 60-pound relaying steel of first quality, and might use from forty to fifty second-hand flats and boxes.

Ranges.—See "Electrical Equipment, etc."

Roofing.—J. W. McKenzie, Montezuma, Ga., is in the market for about 250 squares of metal or gravel roofing.

Ruling and Graduating Machines.—Geo. T. Hammer, 303 C street S. E., Washington, D. C., wants addresses of firms who make ruling or graduating machines for engraving the marks on carpenters' steel squares, rules, etc.

Sewerage System.—Proposals for constructing sewerage system and for paving improvements at Havann, Cuba, will be opened September 25. Information on application to Lieut. W. J. Barden, United States Army, chief engineer.

Sheet-brass Manufacturers.—Novelty Manufacturing Co., Jackson, Tenn., wants addresses of manufacturers of sheet brass.

Steel Work.—Mordecai T. Endicott, chief bureau docks and yards, Navy Department, Washington, D. C., will open bids July 13 for furnishing and erecting structural-steel work for roof over building 60x246 feet, Navy-Yard, Washington. For plans, specifications and forms of proposals address Commandant, Navy-Yard.

Telephones.—J. H. Bankhead, Jr., Jasper, Ala., wants addresses of manufacturers of telephones.

Ventilating Apparatus.—J. K. Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids July 15 for plumbing and ventilation of two toilet-rooms in fourth story of northwest extension of United States Bureau of Engraving and Printing in accordance with drawings and specifications, copies of which may be had at above office or at office of superintendent of bureau.

Viaduct.—John B. Hawley, city engineer, Fort Worth, Texas, will open proposals July 5 for construction of wooden viaduct, with masonry foundations, over railroad reservation; length of viaduct and approaches about 1200 feet, roadway width forty-four (or fifty) feet, and two seven-foot sidewalks. Plans and specifications can be seen at office. Certified check for \$1000 with each proposal. Usual rights reserved.

Water-works.—J. C. Howell, Secretary Water Board, Laurel, Md., will open bids July 11 for material and labor to complete water-works; 120 tons 10-inch cast-iron pipe, 5300 linear feet spiral-riveted pipe and seven valves, small concrete dam, dyke and pump well; for laying 5300 feet 10-inch pipe, 80-horse-power return tubular boiler, simple duplex pump and compound duplex pump. Each bid accompanied by check for 5 per cent. of bid, latter separate or for entire work. Usual rights reserved. Plans and specifications on file at Citizens' National

Bank, Laurel, and at office of engineers, Hill, Quick & Allen, 520 Equitable Building, Baltimore. Copies of plans and specifications may be had of secretary on deposit of \$2.

Water-works.—Bids will be opened July 12 for construction of water-works at Hyattsville, Md., after plans and specifications on file with J. C. Rogers, town attorney. Bid to be accompanied with \$300 check. Work comprises laying about 24,000 feet of four, six and eight-inch mains, building brick pumping station, building brick reservoir, setting machinery and building foundation for tower and tank; C. N. Walker, town clerk.

Well-drilling.—Weatherford, Texas, is receiving bids for boring three wells 400 or 500 feet deep. Address J. T. Cotten.

Well-drilling.—Jefferson & Cypress Bayou Oil Co., Jefferson, Texas, wants bids to bore oil wells 1500 to 2000 feet.

Well-drilling Equipment.—Ackerman Mineral & Development Co., J. Russell Davis, secretary, Ackerman, Miss., wants machinery for well-drilling.

Well-drilling Equipment.—Columbia Oil Co., Wm. F. Jeffries, president, Columbia, Ky., will want a complete oil-well equipment.

Well-drilling Machinery.—Southwestern Oil & Mining Co., 814 Camp street, New Orleans, La., wants to correspond with manufacturers of well-drilling machinery.

Well-drilling Machinery.—Alabama Oil & Gas Co., New Decatur, Ala., is in the market for outfit for drilling to 2500 feet; is also in market for experienced oil and gas well-drillers.

Well-drilling Machinery, etc.—Monroe County Oil, Gas & Land Co., Aberdeen, Miss., will advertise for machinery and supplies for well-drilling.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

NEW CORPORATIONS.

The General Investment Co. has been organized at Orangeburg, S. C., by Robert Lide and others.

Marks Moses and others have become interested in the Eureka Building and Loan Association of Georgetown, S. C.

The Graham National Bank of Graham, Texas, has been organized, with \$50,000 capital stock, by Charles Gay and others.

W. F. Joiner has been elected cashier of the Citizens' Bank, recently organized at Franklinton, N. C., with \$10,000 capital stock.

The First National Bank has been organized at Martha, Texas, with \$50,000 capital stock, by J. R. Sanford of Eagle Pass and others.

Arrangements are being made to organize a bank at Bandana, Ky. R. F. Stewart, it is stated, will be president, and S. T. Payne, vice-president.

Hou. W. O. Bradley has been elected president of the American Loan & Trust Co., recently organized at Louisville, Ky., with \$1,000,000 capital stock.

The Sumter Savings Bank, being organized at Sumter, S. C., will be capitalized at \$25,000. Among those interested are Horace Harby and B. G. Pierson.

The Fayetteville Savings & Trust Co., recently organized at Fayetteville, N. C., is capitalized at \$15,000. W. J. Edwards has been elected president, and J. Ahearn, cashier.

The Star Building and Loan Association has been organized at Charleston, S. C., with \$150,000 capital stock. J. B. Reeves has been elected president, and J. R. Johnson, vice-president.

NEW SECURITIES.

The city of Palestine, Texas, is to vote on the question of issuing \$40,000 in paving bonds.

The Bank of Sykesville, Md., has decided to increase its capital stock from \$10,000 to \$20,000.

Bids will be received until August 10 for the issue of \$25,000 in 4 per cent. bonds of Albany, Ga., by S. B. Brown, mayor.

The city of Cartersville, Ga., has voted in favor of issuing \$10,000 in 4 per cent. bonds for improvements. Address the mayor.

Messrs. Rudolph Kleybolte & Co., of Cincinnati have secured the issue of \$15,000 in 5 per cent. bonds of Covington, Ga., paying 106.333.

The State authorities have approved an issue of bridge bonds of Karnes county, Texas. The commissioners may be addressed at Karnes City.

Bids will be received until July 2 for the issue of \$3000 in 7 per cent. bonds of Collins, Miss. W. R. McGowan, city clerk, may be addressed.

The citizens of Aiken, S. C., will probably vote on the question of issuing \$15,000 in bonds for various purposes. The mayor may be addressed.

The town of Brookhaven, Miss., will probably place on the market in the near future an issue of \$15,000 in school bonds. The town clerk may be addressed.

The school district of Crowley, La., has voted in favor of issuing \$20,000 in bonds for improvements. The school board may be addressed at the town of this name.

The issue of bonds to be made by Buncombe county, North Carolina, will amount to \$50,000. The board of commissioners may be addressed at Asheville.

It is probable that the town of Napoleonville, La., will place on the market in the near future an issue of \$12,000 in water-works bonds. Address the town clerk.

W. C. Houston, town treasurer, may be addressed relative to the issue of \$150,000 in 4 per cent. improvement bonds of Nashville, Tenn. Of this issue, \$143,000 will be sold on July 8.

The stockholders of the Union Trust Co. of St. Louis have ratified the decision of the directors to increase the capital from \$1,500,000 to \$2,000,000. The surplus has been increased to \$3,000,000.

An election will be held on July 8 by the people of Jefferson county, Texas, to decide the question of issuing \$750,000 in road improvement bonds. The county commissioners may be addressed at Beaumont, Texas.

New Hanover county, North Carolina, will probably place on the market in the near future the issue of \$50,000 in road bonds decided upon at the recent election. The board of commissioners may be addressed at Wilmington.

The Jefferson county sanitary commission of Jefferson county, Alabama, has rejected bids for a portion of its 4 per cent. bond issue and placed the matter in the hands of a committee, which includes Arthur W. Smith and Robert Jemison of Birmingham.

FINANCIAL NOTES.

A dispatch from Birmingham, Ala., states that J. B. Cobbs and others have secured an interest in the stock of the Alabama National Bank. It is understood that Mr. Cobbs will become president of the bank.

A dispatch from Galveston states that the contract for repairing the north jetty at Aransas Pass will be made to Charles Clarke & Co. of Galveston.

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The Pennsylvania Railroad Co. will run special excursions to Buffalo on account of the Pan-American Exposition from Washington, Baltimore and adjoining territory, on July 3, 9, 18, 23, 31, August 6, 15, 21, 27, September 5, 11, 17 and 26. Round-trip tickets, good going only on train leaving Washington 7.50 and Baltimore 8.50 A. M., and on local trains connecting therewith, and good to return on regular trains within seven days, including day of excursion, will be sold at rate of \$10 from Baltimore and Washington and proportionate rates from other points. Tickets will be good for passage in parlor cars going and sleeping cars returning on payment of usual Pullman rates. For specific time and rates consult local ticket agents.	55